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**THE TEMPLETON CROCKER EXPEDITION TO WESTERN
POLYNESIAN AND MELANESIAN ISLANDS, 1933**

No. 30

DIPTERA

BY

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With the Collaboration of C. P. ALEXANDER (Tipulidae)

and E. T. CRESSON (Ephydriidae)

The Diptera collected by the Crocker Expedition to the South Seas comprise an interesting collection containing a fairly large percentage of undescribed species, and add to our knowledge of the distribution of species previously known to science. Some of the specimens are from other islands in the South Sea, but the vast majority are from the Solomon Group. I have also included in this report a small collection made by the Whitney South Sea Expedition of the American Museum of Natural History so that our knowledge of the fauna may be more complete.

In order to conserve space I have not included the collector's name after the data, except to indicate those specimens secured by the Whitney Expedition. All other specimens were collected by Mr. Maurice Willows, Jr., under the direction of Mr. Crocker, and the types and uniques are deposited in the Museum of the California Academy of Sciences. Duplicate material and the Whitney Expedition specimens are in the American Museum of Natural History.

No attempt has been made to identify the Culicidae, represented by several species in indifferent condition. Dr. C. P. Alexander has once more rendered great assistance by preparing a report on the Tipulidae and Mr. E. T. Cresson, Jr., has prepared the report on the

Ephydriidae. I wish to express my appreciation to them for their aid, which has increased the value of this contribution, and also to Mr. E. P. Van Duzee for the privilege of examining the collection and retaining duplicate material.

C. H. CURRAN.

TIPULIDAE

(By CHARLES P. ALEXANDER)

I am greatly indebted to Dr. C. Howard Curran for the privilege of examining a small series of crane-flies from the Solomon and Santa Cruz Islands, chiefly collected by Mr. M. Willows, Jr., while a member of the Templeton-Crocker Expedition of 1933. The types of the novelties of these species, mostly in very indifferent condition, are preserved in the Museum of the California Academy of Sciences. Dr. Curran has also included for examination a few additional species from Bougainville and the other Solomon Islands, belonging to the American Museum of Natural History.

TIPULINAE

Megistocera fuscana (Wiedemann)

Nematocera fuscana Wiedemann; Dipt. exot., 1: 29, 1921.

Widely distributed in the Indo-Malayan and Australian regions: Sumatra, Java, Borneo, Celebes, Aru Islands and New Guinea, northward to northern Luzon, southeastward to Queensland, eastward to the Solomon Islands. The genus is one of several crane-flies that occurs in northern Luzon, yet does not reach Formosa.

One female, Guadalcanar Island, September 17, 1927; Am. Mus. Nat. Hist. Accession No. 27590. The record is the most easterly so far reported for this fly.

Nephrotoma guttipleura Alexander, new species

Text figure 1

Mesonotal praescutum yellow, with three black stripes, the outer ends of the lateral pair suffused with more brownish areas that reach the outer margin; posterior border of mediotergite with paired confluent black spots; pleura heavily variegated with brownish black; wings yellow, prearcular region and cells *C* and *Sc* clear light yellow; wing-tip weakly darkened; abdominal tergites orange, ringed caudally with black, presenting a tigrine appearance.

Female: length, about 16 mm.; wing, 13.5 mm.

Frontal prolongation of head moldy, apparently yellow, with the nasus and adjoining regions blackened; basal two segments of palpi brownish yellow, terminal segments black. Antennae with scape and pedicel yellow; proximal flagellar segments yellow, beyond the third or fourth flagellar segment with the basal enlargement slightly darkened; verticils long, exceeding the segments. Head yellow, the occipital brand small and poorly-delimited.

Pronotum yellow medially, brownish black on sides. Mesonotal praescutum yellow, with three black stripes, the lateral pair somewhat more polished than the median; a pale brown suffusion opposite the anterior ends of the lateral stripes, reaching the pretergites; scutum yellow, each lobe with two confluent black areas; a group of black setae on posterior lateral portion of each scutal lobe; scutellum pale brown, the parascutella a little darker; mediotergite yellow, the posterior border with two confluent polished black areas. Pleura pale yellow, conspicuously variegated by brownish black, including most of the anepisternum; ventral sternopleurite; extreme cephalic border of pteropleurite and adjoining posterior edge of anepisternum and sternopleurite; ventral meron; and ventral edge of pleurotergite. Halteres reddish brown, the apex of knob a little brightened. Legs with the coxae orange, the base of middle coxae narrowly blackened, of posterior coxae more broadly so; trochanters yellow; femora obscure yellow; tibiae brownish yellow, the tip very narrowly blackened; (a single leg, fore, remains; tarsi broken). Wings (Text fig. 1) strongly tinged with yellow, the prearcular field and cells *C* and *Sc* clear light yellow; stigma oval, brown; wing-tip restrictedly darkened; veins pale brown, the prearcular veins, *C*, *Sc*, *R* and *Cu* yellow. About a dozen stigmal trichia in cell *R*₁. Venation: *Sc*₂ opposite origin of *Rs*, *Sc*₁ near tip; cell *M*₁ narrowly sessile; *m-cu* on *M*₄ shortly beyond fork; *M*₃ and *M*₄ forking at a common point.

Abdominal tergites orange; basal tergite with caudal border blackened; tergite two with caudal border black, together with extensive lateral darkenings on basal ring; tergites three to eight with transverse black caudal borders, presenting a tigrine appearance; on lateral margins, these black borders turn slightly cephalad and on segments three to five the cephalic-lateral angles of the segments are restrictedly darkened; ovipositor and genital shield orange.

Holotype: female, **Bougainville Island**, May 3, 1928; in Am. Mus. Nat. Hist., Accession No. 28250.

The present fly is readily told from other species and subspecies in the Solomon Islands by the heavily spotted thoracic pleura and narrowly darkened wing-tip. The clear yellow costal border is more like *Nephrotoma solomonis* Alexander than *N. opima* Alexander. The accompanying key will separate the known species and races so far discovered in the islands.

The genus Nephrotoma in the Solomon Islands.

1. Thoracic pleura heavily spotted with brownish black; extreme wing-tip slightly infumed. *gultipleura* sp. nov.
- Thoracic pleura indistinctly variegated with reddish areas; wing-tip undarkened. 2
2. Cell *Sc* dark brown, contrasting with the pale yellow cell *C*. *opima* Alexander
- Cell *Sc* yellow, concolorous with cell *C* (*solomonis* and races). 3
3. Abdomen orange, scarcely patterned, only the ninth segment black (male). *solomonis malaitana* subsp. nov.
- Abdominal tergites yellow or orange, the posterior margins ringed with black 4
4. Praescutal stripes intensely black, the lateral pair turned outward at their anterior ends; abdomen with basal four tergites orange, the posterior margins black; segments five to nine chiefly black *solomonis guadalcanarana* subsp. nov.
- Praescutal stripes brownish black, the median stripe more or less obliterated at anterior end; abdomen with basal seven tergites yellow, the posterior margins black; segments eight and nine chiefly dark brown. *solomonis solomonis* Alexander

***Nephrotoma opima* Alexander**

Nephrotoma opima Alexander; Ann. Mag. Nat. Hist., (9) 13: 49, 1924.

The type is a female from Pamua, San Cristoval Island, collected by William M. Mann. A few additional specimens in the present series: Males and females, Star Harbor, San Cristoval Island, July 1, 1933. One male, Santa Catalina Island, Solomon Group, July 2, 1933.

The male hypopygium is much as in *Nephrotoma solomonis* Alexander and it is possible that the present fly will eventually be held to be only a geographic race of the latter, despite very distinct details of coloration. The abdomen of the male has tergites two to five orange, the posterior borders black; sternites two to five similar, but the borders only indistinctly darkened; segments six to nine, including hypopygium, black. Antennal flagellum chiefly black.

***Nephrotoma solomonis* Alexander**

Nephrotoma solomonis Alexander; Ann. Mag. Nat. Hist., (9) 13: 48-49, 1924.

The types are from Tulagi, Florida Island, Solomon Group, collected by William M. Mann. A few additional specimens which I refer to this species show characters that necessitate the erection of subspecies, which may well be found to be restricted to certain islands of the Solomon Group.

***Nephrotoma solomonis solomonis* Alexander**

Praescutal stripes brownish black, the median one more or less obliterated at anterior end; abdominal tergites one to seven with caudal margins narrowly and evenly blackened; segments eight and nine dark brown; styli of hypopygium obscure yellow.

***Nephrotoma solomonis malaitana* Alexander, new sub-species**

As in typical *solomonis*, differing as follows: Antennae more strongly bicolorous, the basal enlargement dark brown, the remainder yellow; flagellar segments more strongly incised. Ground-color of head and thorax more orange, the praescutal stripes more reddish brown, subnitidous. Abdomen orange, without distinct markings, only segment nine black. Male hypopygium with outer dististyle yellowish brown.

Holotype: male, No. 4019, Mus. Calif. Acad. Sci., Ent., Uras Cove, Malaita Island, May 28, 1933.

***Nephrotoma solomonis guadalcanarana* Alexander,
new sub-species**

As in typical *solomonis*, differing as follows: General coloration of body more orange than yellow. Praescutal stripes intensely black, the lateral pair with a velvety-black spot opposite their anterior end, outcurved to margin; scutellum

(male) with paired pale brown spots. Abdomen with basal four segments orange, the posterior borders narrowly and evenly blackened; fifth segment black, the extreme base vaguely brightened; succeeding segments (male) black.

Male: length, 10.5—11 mm.; wing, 10—10.5 mm.

Female: length, about 15 mm.; wing, about 12 mm.

Holotype: male, **Guadalcanar Island**, July 1927; Am. Mus. Nat. Hist., Accession No. 27, 590; *allotopotype*: female, No. 4020, Mus. Calif. Acad. Sci., Ent., **Kau Kau Plantation, Guadalcanar Island**, May 23, 1933, Templeton Crocker Expedition; *paratopotype*: male, with the allotype; author's collection.

LIMONIINAE

Limonia (Laosa) bipartita Alexander, new species

Text figure 2

General coloration yellow, the posterior two-thirds of the praescutum, together with the scutum, darkened; rostrum light yellow; knobs of halteres dark brown; wings whitish, with an irregular, pale brown, crossbanded pattern; supernumerary crossveins in cells R_3 and R_5 ; abdominal tergites yellow, their caudal borders black.

Female: length, about 7 mm.; wing, 7.2 mm.

Rostrum light yellow, relatively long, exceeding one-half the length of remainder of head; palpi brownish black. Antennae with scape and pedicel yellow; flagellum brownish black; terminal segment one-half longer than the penultimate; verticils shorter than the segments. Anterior vertex reduced to a narrow, light gray strip, about one-third as wide as the diameter of the scape; posterior region of head dark brown.

Pronotum light yellow. Mesonotal praescutum light yellow on anterior third, the posterior portion darkened; scutum similarly darkened, including the median area; scutellum pale yellow, the posterior border very weakly darkened; mediotergite yellow, the posterior half or less suffused. Pleura and pleurotergite pale yellow. Halteres of moderate length, yellow, the knobs dark brown. Legs with the coxae and trochanters light yellow; remainder of legs broken. Wings (Text fig. 2) whitish, with an irregular pale brown pattern that is distributed about as illustrated, the outer edges of the brown areas very slightly darker than the centers; veins pale brown, darker in the clouded portions. Venation: Sc relatively long, Sc_1 ending about opposite one-fourth the length of cell $1st M_2$, Sc_2 at its tip; free tip of Sc_2 and R_2 in approximate transverse alignment; supernumerary crossveins in cells R_3 and R_5 ; cell $1st M_2$ long, widened distally, m shorter than the basal section of M_3 ; $m-cu$ at near one-third the length of the cell; Anal veins beyond base very strongly convergent, at narrowest point cell $1st A$ reduced to a linear strip.

Abdomen with the tergites obscure yellow, the caudal borders of the segments black, this pattern involving segments two to seven; shield of ovipositor darkened; sternites chiefly pale yellow. Ovipositor with the valves short but slender, the cerci gently upcurved.

Holotype: female, No. 4021, Mus. Calif. Acad. Sci., Ent., **Star Harbor, San Cristoval Island**, July 1, 1933.

The only described regional species of *Laosa* with two supernumerary crossveins in the radial field of the wing are *Limonia (Laosa) falcata* Alexander (New Britain), readily told by the falcate wings, with abundant brown dots in the interspaces; and *L. (L.) riedelella* Alexander (New Guinea), a much larger fly, with m much longer than the short, transverse, basal section of vein M_3 , and with the

dark wing-pattern restricted to small seams on certain of the crossveins and deflections. I have indicated in other papers the reasons for restricting the name *Laosa* to those species of *Limonia* having one or two supernumerary crossveins in the outer radial field of the wing.

Limonia (Libnotes) willowsi Alexander, new species

Text figure 3

Close to *aurantiaca*; general coloration yellow; praescutum variegated by brownish black on posterior half; wings pale yellow; cells *C* and *Sc* more saturated; conspicuous brown crossbands, including a more extensive fascia at and beyond arculus, the yellow costal border beyond this band reduced in area; abdominal tergites yellow, segments three to seven each with a conspicuous, triangular, black area on either side, the midline narrowly pale.

Female: length, about 8.5 mm.; wing, 11 mm.

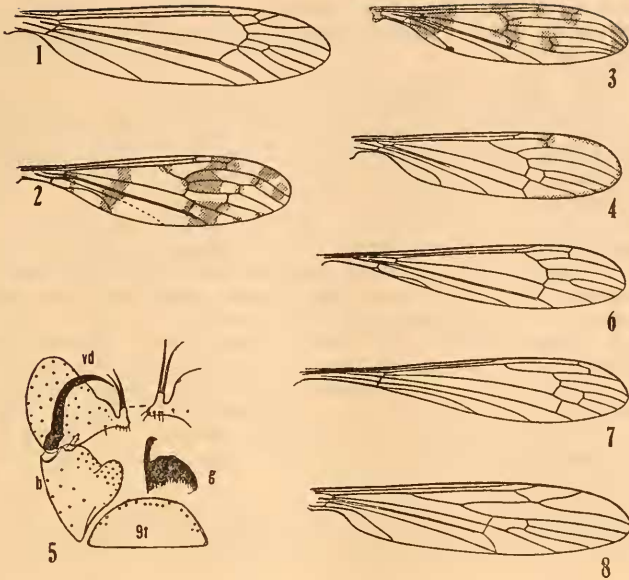
Rostrum yellow; palpi obscure yellow. Antennae with the scape yellow; pedicel and basal segments of flagellum black, the outer flagellar segments somewhat paler, yellowish brown; basal flagellar segments short-oval, the outer ones more elongate; terminal segment long and slender, about equal in length to the two preceding segments combined; longest verticils unilaterally arranged, a little longer than the segments. Posterior vertex and occiput brown; eyes broadly holoptic, obliterating the anterior vertex.

Pronotum yellow, broadly dark brown behind. Mesonotal praescutum light yellow on about the anterior half, the posterior half light brown, with a more brownish black darkening on the anterior border of the infuscated portion, more extensive on the sides; scutum yellow, the lobes chiefly blackened; scutellum light yellow; mediotergite yellow in central portion, brownish black sublaterally. Pleura and pleurotergite yellow. Halteres relatively elongate, the stem yellow, the knob dark brown. Legs with the coxae and trochanters light yellow; remainder of legs broken. Wings (Text fig. 3) pale yellow, cells *C* and *Sc* more saturated yellow; a conspicuous brown crossbanded pattern, more intense along the costa, somewhat paler behind; the dark pattern includes the extreme wing-base; a broad fascia beyond the arculus; cord; tip of *Sc*₁; stigma and outer end of cell *1st M*₂; wing-tip more weakly darkened; small dark spots at outer ends of Anal veins; veins yellow, darkened in the clouded areas. Venation: *Sc*₁ ending shortly before outer end of cell *1st M*₂, *Sc*₂ at its tip; *R*₁₊₂ jutting distad beyond level of free tip of *Sc*₂, the latter lying shortly beyond level of *R*₂; *m-cu* more than its length beyond the fork of *M*.

Abdomen yellowish brown, the third to seventh tergites with a conspicuous triangular black area on either side, the mid-line narrowly pale; sternites yellow. Ovipositor with valves short but slender, reddish horn-color, the bases more darkened; cerci strongly upcurved.

Holotype: female, No. 4022, Mus. Calif. Acad. Sci., Ent., Uras Cove, Malaita Island, May 28, 1933.

Limonia (Libnotes) willowsi is named in honor of the collector of this interesting series of crane-flies from the Solomon Islands. The fly is very close to *L. (L.) aurantiaca* (Doleschall) and may prove to be a geographical form of this latter species. The much heavier and more extensive brown wing-pattern and differences in the coloration of the thorax and abdomen induce me to consider the fly as being specifically distinct. *L. (L.) flavipalpis* (Edwards) and *L. (L.) illecebrosa* (Alexander) are more distantly allied.



- Fig. 1. *Nephrotoma guttipleura* Alexander, new species, venation.
 Fig. 2. *Limonia (Laosa) bipartita* Alexander, new species, wing.
 Fig. 3. *Limonia (Libnotes) willowsi* Alexander, new species, wing.
 Fig. 4. *Limonia (Libnotes) ehippiata* Alexander, new species, wing.
 Fig. 5. *Limonia (Dicranomyia) cruzi* Alexander, new species, male hypopygium.
b, basistyle; *g*, gonapophysis; *t*, tergite; *vd*, ventral dististyle.
 Fig. 6. *Limonia (Pseudoglochina) fuscolata* Alexander, new species, venation.
 Fig. 7. *Limonia (Thrypticomysia) spatulata* Alexander, new species, venation.
 Fig. 8. *Trentepohlia (Mongoma) solomonensis* Alexander, new species, venation.

Limonia (Libnotes) solomonis (Alexander)

Libnotes solomonis Alexander; Ann. Mag. Nat. Hist., (9) 13: 39-40, 1924.

Described from Guadalcanar Island, January 17-18, 1921, collected by J. A. Kusche. Later reported by the present writer from Rabaul, New Britain, January 1933, taken by Frank H. Taylor.

One male, Nupani Reef Island, Santa Cruz Group, May 8, 1933. One male, Matema Islands, Santa Cruz Group, July 8, 1933.

Readily told from all generally similar species of *Libnotes* by the conspicuously blackened bases of all tibiae.

Limonia (Libnotes) ehippiata Alexander, new species

Text figure 4

General coloration of thorax reddish, with a transverse black saddle beyond midlength of the praescutum; flagellum dark brown; head black, sparsely pruinose; knobs of halteres dark brown; wings subhyaline, the prearcular region and cells

C and *Sc* light yellow; stigma small, dark brown; wing-apex narrowly bordered by dark; cell *1st M*₂ small; abdomen reddish, the basal two sternites with black areas near outer ends.

Female: length, about 6.5 mm.; wing, 7 mm.

Rostrum brown; palpi black. Antennae with scape black; pedicel obscure brownish yellow; flagellum dark brown; flagellar segments oval, gradually decreasing in size outwardly, the terminal segment a little shorter than the penultimate; verticils subequal in length to the segments. Head black, sparsely pruinose; eyes very large, contiguous on vertex.

Prothorax and mesonotal praescutum entirely reddish except for a very conspicuous black saddle on the latter, lying transversely across the sclerite, its anterior edge at near midlength of the praescutum, its posterior border some distance before the suture; surface of thorax polished; posterior sclerites of mesonotum more yellow. Pleura reddish. Halteres pale, with dark brown knobs. Legs with the coxae and trochanters reddish; remainder of legs broken. Wings (Text fig. 4) subhyaline, the prearcular region and cells *C* and *Sc* light yellow; stigma small, subcircular, dark brown; wing-border from just beyond the stigma to end of vein *Cu*₁ very narrowly darkened; veins dark brown, yellow in the flavous areas. Venation: *Sc*₁ ending nearly opposite *r-m*, *Sc*₂ a short distance from its tip; free tip of *Sc*₂ and *R*₂ in transverse alignment; cell *1st M*₂ small, with *m-cu* at near one-third its length; Anal veins gently divergent.

Abdomen reddish, the tergites unmarked; basal two sternites with a black mark near outer margin, the second one larger; bases of hypovalvae blackened. Ovipositor with the elongate cerci slender and nearly straight.

Holotype: female, No. 4023, Mus. Calif. Acad. Sci., Ent., Star Harbor, San Cristoval Island, July 3, 1933.

By Edwards' key to the species of *Libnotes* (Journ. Fed. Malay St. Mus., 14: 74-80; 1928), the present fly runs to couplet 61, differing from all forms beyond this point, and likewise from all other more recently characterized species, by the transverse black saddle beyond midlength of the praescutum.

Limonia (*Dicranomyia*) *cruzi* Alexander, new species

Text figure 5

Belongs to the *tristis* group; allied to *subsordida*; mesonotal praescutum obscure yellow, with a median brown stripe, lateral stripes lacking; pleura brown, sparsely pruinose, with a narrow, dark brown, longitudinal stripe; halteres yellow, the knobs dark brown; male hypopygium with the rostral spines elongate, exceeding one-third the length of the dorsal dististyle; mesal-apical lobe of the large blackened gonapophyses with microscopic denticles.

Male: length, about 4 mm.; wing, 4.4 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval, the verticils subequal in length to the segments. Head gray; narrowest point of vertex about one-half as wide as the diameter of scape.

Pronotum dark brown. Mesonotal praescutum obscure yellow, with a conspicuous brown median stripe that is partly interrupted at near midlength; no lateral praescutal stripes; scutum obscure yellow, the mesal half of each lobe darkened; scutellum testaceous brown; mediotergite weakly darkened, sparsely pruinose. Pleura brown, sparsely pruinose; a narrow, dark brown line from the cervical region to the base of abdomen. Halteres yellow, the knobs dark brown. Legs with the coxae yellow, the bases weakly darkened; trochanters yellow; femora yellow basally, passing into brown; tibiae and tarsi pale brown, the outer segments

of the latter dark brown. Wings tinged with grayish, the small, subcircular stigma brown; scarcely evident darkenings at arculus and origin of *Rs*; veins brown. Venation: *Sc*₁ ending opposite origin of *Rs*, *Sc*₂ at its tip; free tip of *Sc*₂ and *R*₂ in transverse alignment; *m-cu* at fork of *M*.

Abdomen dark brown. Male hypopygium (Text fig. 5) with the caudal margin of tergite, *9t*, convexly rounded, with nearly a score of strong setae arranged around margin. Basistyle, *b*, short and stout, the ventro-mesal lobe basal in position. Ventral dististyle, *vd*, large and fleshy, the rostral prolongation stout at base, suddenly constricted before the spines; these latter are two in number, from a conspicuous common tubercle; spines close together, long and slender, gently diverging; each spine exceeds one-third the length of the sickle-shaped dorsal dististyle. Gonapophyses, *g*, appearing as broad blackened plates; mesal-apical lobe long and narrow, a little dilated at apex, the margin with a series of microscopic denticles.

Holotype: male, No. 4024, Mus. Calif. Acad. Sci., Ent., Matema Island, Santa Cruz Group, July 7, 1933.

The nearest ally is *Limonia (Dicranomyia) subsordida* (Edwards) of Samoa, which differs in slight details of coloration of the mesonotal praescutum and halteres, and more evidently in the structure of the male hypopygium, especially the rostral spines and the elongate spinous mesal-apical lobe of the gonapophysis.

Limonia (Pseudoglochina) fuscolata Alexander, new species

Text figure 6

Allied to *laticincta*; mesonotum almost uniformly light brown; pleura chiefly occupied by a broad, pale yellow, longitudinal stripe, the ventral sternopleurite dark; tibiae white, with a very broad central brownish black ring; tarsi white; wings with a brownish tinge, the stigma oval, darker brown; *Sc*₁ ending about opposite midlength of *Rs*; anterior cord oblique; *m-cu* beyond fork of *M*; cell *2nd A* very small.

Female: length, about 5.5 mm.; wing, 5.6 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval, clearly separated; verticils conspicuous. Front dark; vertex pale brownish yellow, darker behind.

Mesonotum almost uniformly light brown, the humeral region of praescutum a little darker. Pleura chiefly occupied by a very broad, pale yellow, longitudinal stripe, restricting the brown color to the ventral sternopleurite and dorsal pleurotergite. Halteres dark brown. Legs with the coxae pale basally, darker apically; trochanters brownish testaceous; femora brown, passing into dark brown; tibiae snowy-white, with a very extensive brownish black central ring that is about twice as wide as the pale apex beyond; basal white ring narrow; tarsi snowy-white, the outer segment slightly darker. Wings (Text fig. 6) with a strong brownish tinge; stigma oval, darker brown; veins brownish black. Veins somewhat stouter than in *laticincta*. Venation: *Sc*₁ ending some distance beyond origin of *Rs*, nearly opposite one-half the length of the vein; *Rs* and basal section of *R*₄₊₅ shorter and more oblique than in *laticincta*; *m-cu* shortly beyond the fork of *M*; cell *2nd A* very small, only about one-half as long as in *laticincta*.

Abdominal tergites dark brown, the sternites more yellowish brown.

Holotype: female, No. 4025, Mus. Calif. Acad. Sci., Ent., North-west end of Bellona Island, June 21, 1933.

Limonia (Pseudoglochina) fuscolata is entirely distinct from the larger *L. (P.) laticincta* (Edwards) of Samoa, which has a somewhat similar leg-pattern but an entirely different venation, as shown above.

Limonia (Thrypticomyia) spathulata Alexander, new species

Text figure 7

General coloration of mesonotum uniformly pale brown, the pleura yellow; legs brown, the tarsi snowy-white, with about the proximal sixth of the basitarsi darkened; wings almost uniformly tinged with brown, the prearcular cells more hyaline; Sc_1 ending just before origin of R_s ; free tip of Sc_2 about three times its length before R_2 ; R_{1+2} lacking; basal section of R_{4+5} short; $m-cu$ at about one-third the length of cell $1st\ M_2$; abdominal tergites uniformly dark brown.

Female: length, about 4.5 mm.; wing, 5.5 mm.

Rostrum and palpi black. Antennae black, relatively long, the long-oval flagellar segments with conspicuous apical pedicels; verticils very long, especially on the more basal segments. Head dark.

Mesonotum uniformly pale brown, the mediotergite a little paler. Pleura pale yellow. Halteres brown. Legs with the coxae and trochanters pale yellow; femora brown, the bases narrowly yellow; tibiae darker brown; tarsi white, with about the proximal sixth of the basitarsi darkened. Wings (Text fig. 7) almost uniformly tinged with brown, the prearcular cells more hyaline; stigma elongate, darker brown; veins brownish black. Wing-form more accentuated spatulate than in most members of the subgenus, the prearcular region and cells immediately beyond arculus strongly narrowed. Venation: Sc_1 ending just before origin of R_s , Sc_2 some distance from its tip; free tip of Sc_2 about three times its length before R_2 , the latter meeting R_1 at a right angle, with no basal spur of R_{1+2} persisting; basal section of R_{4+5} unusually short, slightly angulated at near midlength; $m-cu$ at about one-third the length of cell $1st\ M_2$.

Abdominal tergites uniformly dark brown, the sternites paler.

Holotype: female, No. 4026, Mus. Calif. Acad. Sci., Ent., Matema Island, Santa Cruz Group, July 9, 1933.

Among the now rather numerous species of *Thrypticomyia* known in the Australasian fauna, the present species comes closest to *Limonia (Thrypticomyia) doddi* (Alexander) of Queensland, which is best-separated by venational details (as the longer Sc , long basal spur of R_{1+2} , elongate basal section of R_{4+5} , which is distinctly longer than the basal section of M_{1+2} and almost equal in length to $m-cu$) and by the more extensive darkening of the basitarsi which involves approximately the basal half of the segment.

Trentepohlia (Mongoma) brevipes Alexander

Trentepohlia (Mongoma) brevipes Alexander; Ann. Mag. Nat. Hist., (10) 7: 18-19, 1931.

Described from Suali, Vailala River, Papua, collected by Littlechild. Later discovered in New Britain (Toma, February 1933, collected by Frank H. Taylor).

One female, Star Harbor, San Cristoval Island, July 3, 1933.

Trentepohlia (Mongoma) solomonensis Alexander, new species

Text figure 8

General coloration of body pale brown; femora and tibiae uniformly darkened; outer tarsal segments paling to obscure yellow; wings subhyaline; basal section of R_5 long; vein R_3 exceeding one-half the length of vein R_4 ; proximal end of cell M_3 lying basad of that of cell $2nd\ M_2$; $m-cu$ at fork of M .

Male: length, about 6 mm.; wing, 6.3 mm.

Rostrum obscure yellow; palpi brown. Antennae with the scape a trifle brighter in color than the remaining dark brown color of the organ; flagellar segments cylindrical, with verticils that are subequal to or shorter than the segments. Head dark, pruinose; anterior vertex reduced.

Mesonotum rather pale yellowish brown, the praescutum without clearly defined stripes; setae of interspaces relatively long and erect. Pleura yellow. Halteres dusky. Legs with the coxae and trochanters yellow; femora and tibiae brown, the outer tarsal segments paling to yellow; femora at bases with a series of from 6 to 8 short black spines; two long black setae at distal end of tibia (at least on one pair of legs, detached, but presumably the posterior). Wings (Text fig. 8) subhyaline; veins darker. A series of about 14 strong trichia on outer section of vein R_5 . Venation: Basal section of vein R_5 relatively long, approximately two-thirds the length of R_5 ; R_2 sinuous, some distance before fork of R_{3+4} ; vein R_3 oblique, about three-fifths the length of R_4 ; inner end of cell M_3 lying proximad of that of $2nd\ M_2$; $m-cu$ at fork of M ; apical fusion of veins Cu_1 and $1st\ A$ slight.

Abdomen dark brown, the basal sternites somewhat paler.

Holotype: male, No. 4027, Mus. Calif. Acad. Sci., Ent., **Kau Kau Plantation, Guadalcanar Island, May 23, 1933.**

By Edwards' key to the Australasian species of *Trentepohlia* (Insects of Samoa, Part 6, fasc. 2, Diptera Nematocera, pp. 94-95; 1928), the present fly runs to *Trentepohlia (Mongoma) brunnea* Edwards, a large vigorous species with strongly infumed wings. I am indebted to Doctor Edwards for a paratype specimen of this latter insect. I know of no other more nearly allied species.

PSYCHODIDAE

There is a single, very badly rubbed specimen of *Parabrunettia* from Santa Catalina Island, July 3, 1933, but its condition is too poor for determination.

SCIARIDAE

This family is represented by two or possibly three species taken on Santa Catalina Island, July 2, 1933. Two of the specimens are in such poor condition that they cannot be named. Three specimens may prove to be *S. pruinosa* Rübsaamen. In these the first flagellar segment is only half as long as the second, not twice as long, as given in Edward's key. On account of the difference in the length of the antennal segments I hesitate to identify the specimens, even though I think the statement of length is erroneous.

STRATIOMYIDAE

There are five species before me, three of them represented only by specimens collected by the Whitney South Sea Expedition.

Evaza Walker

Five specimens collected by the Whitney South Sea Expedition represent three species, all of which appear to be undescribed. They may be distinguished by means of the following key.

Table of Species

- | | |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1. Sides of the mesonotum very broadly silvery white haired in front of the suture. | 2 |
| - Sides of the mesonotum with a linear stripe of silvery white hairs in front of the suture; genitalia reddish. | <i>solomensis</i> , n. sp. |
| 2. All the tibiae dark brown; genitalia black; posterior tarsi wholly reddish yellow. | <i>incidens</i> , n. sp. |
| - Posterior four tibiae and tarsi yellowish white; genitalia reddish. | <i>whitneyi</i> , n. sp. |

Evaza solomensis Curran, new species

Posterior four tibiae rusty reddish with the median third yellowish. Length, 8 mm.

Male: head black, the frontal triangle and face white pollinose; lower part of the occiput with brown, the cheeks with yellow pollen; occipital hair brown, that on the proboscis yellow. Proboscis and palpi brown, the labellae reddish. Antennae brownish red, the third segment reddish yellow; arista light brown. Eyes with enlarged facets on the upper two-thirds.

Thorax black, the humeri, posterior calli, a slender stripe on the upper edge of the mesopleura and the area immediately surrounding the roots of the wings ferruginous, the free border of the scutellum, except basally, and its spines yellowish. Mesonotum with somewhat more than the median third on the posterior two-thirds, the narrow lateral margins and the scutellum, with appressed silvery white hair, otherwise with very short brown hair; pleura with silvery white hair.

Coxae and femora yellow; apical third of the posterior four femora and almost the apical half of the anterior pair rusty reddish; hair pale yellow, black on the dark portions. Anterior tibiae pale brown, brown haired; middle and posterior tibiae pale brownish with about the median third reddish yellow, the middle tibiae with yellowish hair in front and brown behind, the posterior pair mostly yellowish haired but with some black hairs on the dark areas. Anterior tarsi brown and with brown hair; posterior four tarsi reddish yellow, the hair wholly pale.

Wings cinereous hyaline, the costal border broadly brown on the apical half, the apical third of the wing, except the discal cell, and the first basal cell pale brown. Squamae brown. Halteres reddish yellow, with brown knobs.

Abdomen shining black, the hair brown. Genitalia reddish.

Female: front narrowest at the anterior fifth, a little more than twice as wide in front of the ocelli, vertex rather deeply excavated on either side of the ocellar tubercle; occiput strongly produced above, the edge rather sharp; antennae wholly reddish yellow; eyes without enlarged facets. Abdomen brownish, the apices of the segments and much of the venter dull reddish.

Holotype: (♂), and *allotype*: (♀): **Vella Lavella Island, Solomon Group**, November 16, 1927 (Whitney Expedition); in American Museum of Natural History.

Apparently related to *fortis* Walker, but the legs are differently colored. Brunetti states that the posterior four femora and tibiae are pale brown on the apical half in *fortis*.

Evaza incidens Curran, new species

Posterior four legs with the apical fourth of the femora and the tibiae entirely brown. Length, 6 mm.

Female: head shining black, the front and occiput sometimes brown; face thinly cinereous pollinose, the front with a small silvery spot immediately above the bases of the antennae. Front twice as wide above as at the anterior fifth. Occiput rather strongly produced on the upper half, deeply incised on the vertex on either side of the ocellar tubercle. Hair on the occiput and face black, very short on the face. Proboscis and palpi brown. Antennae reddish yellow, the arista black.

Thorax black, the humeri, a small spot on the posterior calli, and the upper edge of the pteropleura shining brownish red. Hair silvery white, appressed, a broad arch of brown hair extending across the front margin of the mesonotum and carried back to the posterior border on either side, widened to reach the lateral margins behind the suture but very broadly separated from them in front of the suture. Free border of the scutellum except basally, and the spines, yellow.

Legs brown, the coxae, basal fourth of the front and two-thirds of the posterior four femora, and the posterior four tarsi yellow; apices of the posterior four femora black. Hair yellow on the pale parts, brown on the dark portions.

Wings cinereous hyaline, the costal border broadly brown on the apical half; apical portion of the wing light brown beyond the discal cell. Squamae brown. Halteres dark brown, the stem reddish.

Abdomen shining black, the hair brown, mostly pale on the middle of the venter.

Holotype (♀), and *paratype* (♀): **Choiseul Island, Solomon Group**, November 26, 1927 (Whitney Expedition); in American Museum of Natural History.

Apparently related to *maculifera* de Meijere and *indica* Kertesz, but differing in the color of the legs and in other respects.

Evaza whitneyi Curran, new species

Apical third of the femora black, the front tibiae and tarsi brown. Length, 7.5 mm.

Male: head black; frontal triangle white pollinose, the face cinereous, the cheeks brown; hair black. Palpi and proboscis brown, the labellae reddish brown. Antennae yellow, the arista black. Eyes with enlarged facets on the upper two-thirds.

Thorax black, with silvery and brown hair as in *incidens*, the scutellum similarly colored.

Legs pale yellow, the femora black on the apical third; anterior tibiae and tarsi brown. Hair yellow, brown on the dark areas.

Wings colored as in *incidens*. Squamae and halteres brown, the latter with reddish yellow stem.

Abdomen shining black, the hair wholly brown. Genitalia reddish.

Holotype (♂): **Malaita Island** (Whitney Expedition).

This species has the legs so strikingly different in coloration from *incidens* that I do not believe the two forms can be sexes of one species. The humeri are wholly black.

Lophoteles plumula Loew

Lophoteles plumula Loew, Berl. Ent. Zeitschr., ii, p. 111 (f), 1858.

Salduba exigua Wulp, Termes. Fuzet., xxi, p. 413 (f), 1898.

Two ♂, 1 ♀, Matema Islands, Santa Cruz Group, July 8, 1933; ♂, ♀, Nupani Reef Island, Santa Cruz Group, May 8, 1933.

Pedicella mactans (Walker)

Sargus mactans Walker, Proc. Linn. Soc. London, iv, p. 97, 1860.

Sargus mactans Wulp, Notes Leyd. Mus., vii, p. 65, 1885.

Sargus mactans de Meijere, Tijd. v. Ent., liv, p. 263, 1911.

Male: Guadalcanar Island, September 18, 1927; ♀, Choiseul Island, November 25, 1927 (Whitney Expedition); ♀, Kau Kau Plantation, Guadalcanar Island, May 20, 1933.

This species is recorded from many of the oceanic Islands, occurring from India to Australia.

ASILIDAE

In addition to the material secured by the Crocker Expedition there are a number of specimens before me collected by the Whitney South Seas Expedition during 1927.

Leptogaster crockeri Curran, new species

Related to *trifasciata* de Meijere, but the lateral black mesonotal vittae are very broad; there are large basal yellowish spots on the sides of the abdominal segments, and the apex of the wing is more extensively brown. Length, 7 mm.

Male: head black in ground color. Face linear above, widening below and just below the antennae, whitish pollinose; front narrow, with parallel sides, the ocellar tubercle shining. Proboscis brownish red. Antennae reddish, the third segment brown, narrow, not as wide as the second, tapering, the arista stout, brown, as long as the antenna. Hair on face and occiput whitish.

Thorax rusty reddish, the mesonotum darker and shining, with an entire, posteriorly tapering median black vitta, the sides very broadly blackish on more than the posterior half; pleura pale yellow pollinose. Scutellum concealed by gum. Mesosternum more or less brown or ferruginous.

Coxae and trochanters yellow, the anterior coxae darker; femora yellowish, the posterior pair swollen on the apical third, with a broad brown band on the apical fifth; middle femora with a pale brownish band near the apical fourth; the hair black. Tibiae pale brownish yellow, the posterior pair darker, the hair yellowish, but mostly black on the hind pair. Tarsi brownish yellow, the basal one or two segments paler.

Wings hyaline, the veins black, the apex with a broad brown border extending from the apex of the marginal cell to the second submarginal where it forms a large triangle. Halteres yellow, the knob brown.

Abdomen black, with violaceous tinge above; a broad band on the middle of the second segment and the bases of the third to sixth segments moderately broadly, reddish yellow, the basal yellow fasciae expanding laterally and extending over the sternites; seventh sternite broadly yellowish basally, the eighth wholly yellow. Hair black. Genitalia ferruginous below, brown above.

Holotype: male, No. 4028, Mus. Calif. Acad. Sci., Ent., Santa Catalina Island, Solomon Group, July 2, 1933.

Clinopogon nicobarensis (Schiner)

Stichopogon nicobarensis Schiner, Novara, p. 161, 1868.

A female from Matema Island, Santa Cruz Group, July 7, is referred here with some doubt, since Schiner's description leaves much to be desired.

Smeringolaphria ferruginosa (Wulp)

Laphria ferruginosa Wulp, Tijd. v. Ent., xv, p. 185, 1872.

Female; Auki Bay, Malaita Island, May 26, 1933.

The determination of this specimen must be regarded as tentative since I have no material for comparison.

Maira Schiner

Many of the species belonging to this genus bear a close superficial resemblance, and it is almost impossible to identify the species from available descriptions. It seems likely that some of the published synonymy is erroneous, and that the actual number of species will be found to be greater than the number now recognized. I have before me six species from the Solomon Islands, only one of which can be placed with any degree of certainty. Three of these are represented by females only and must be ignored until the genus has been properly revised. Two of the species are described as new, figures of the genitalia being given, this seeming to be the only satisfactory means of separating closely allied forms at the present time.

Table of Species

(All included species have the face golden).

1. Anterior four femora and tibiae with long golden yellow hair. *spectabilis* Guerin
- . Legs without golden yellow hair. 2
2. Occiput with black hair extending onto the lower half. 3
- . Occiput with the black hair not extending to the middle. 4
3. Mesonotum with numerous erect black hairs posteriorly. species No. 1
- . Mesonotum with only the dorsocentral hairs posteriorly, almost without erect hairs. species No. 2
4. Posterior trochanters with only a few white hairs. *whitneyi*, n. sp.
- . Posterior trochanters almost all white haired; knob of halteres yellow with black base. 5
5. Three or four pairs of scutellar bristles; bristles of the mystax all black; collar with many black hairs. *willowsi*, n. sp.
- . One pair of scutellars; lower bristles of the mystax yellow; collar without black hairs. species No. 3

Maira species No. 1

Female; N.W. end of Bellona Island, June 22, 1933.

This species is close to *willowsi* but has the halteres brown and the whole posterior orbits and front of the cheeks bear black hair.

Maira species No. 2

Female: Guadalcanar Island, July, 1927 (Whitney Expedition).

Related to *spectabilis* because of the absence of long hairs on the mesonotum behind, but the legs bear white hair and the antennae are much shorter.

Maira spectabilis (Guerin)*Laphria spectabilis* Guerin, Voy. de la Coquille, III, p. 85, 1830.

Two males: Bougainville Island, May 3, 4, 1928 (Whitney Expedition).

This species has the third antennal segment elongate and the male bears long, golden yellow hair on the under surface of the anterior four legs.

Maira whitneyi Curran, new species

Plate 1, figure 7

Metallic blue; face golden; pleura whitish pollinose; legs with long white hair. Length, 13 to 17 mm.

Male: face and front dark ochraceous pollinose; facial hair golden; six or seven pairs of black bristles in the mystax; ocellar tubercle black. Occiput shining black and black haired above, densely white pollinose and white haired on more than

the lower half; cheeks with white hair. Palpi black haired. Antennae black; third segment slightly clavate, almost one-third longer than the basal two combined; hair and bristles black.

Thorax and abdomen metallic blue, usually with violaceous tinge. Humeral area and sides of the mesonotum bronzed, with brownish pollen; pleura white pollinose; mesonotum with long hairs in front and behind and between the rows of dorsocentrals; scutellum with two or three pairs of marginals. Hair black, white on the pleura, except the upper part of the mesopleura; trichostichal bristles all black.

Legs metallic steel blue or purplish, the coxae densely whitish pollinose and with white hair; hair black, long and white on the under surfaces of the anterior four femora and tibiae, the latter also with long black bristly hairs ventrally, the posterior femora mostly white haired beneath; hair of tarsi and of the posterior trochanters black.

Wings hyaline basally, grayish behind, brown to pale brown on the apical half; anterior crossvein situated at the basal third of the discal cell. Squamae and halteres brown.

Abdomen with black hair except on the sides of the first segment basally, and on the venter, where there are white hairs mixed with the black. Genitalia short and robust (Pl. 1, fig. 7).

Female: The long hairs on the mesonotum are sparser and do not extend between the dorsocentrals; there is very little white hair on the legs and the hair on the venter and sides of the abdomen is much shorter.

Holotype: ♂, *allotype*: ♀, and *paratype*: ♂, **Florida Island**, September 12, 13, 11, 1927 (Whitney Expedition). American Museum of Natural History.

***Maira willowsi* Curran, new species**

Plate 1, figure 8

Similar to the preceding species, but the legs bear more abundant yellowish white hair, the posterior trochanters are practically all white haired and the male genitalia are much narrower. Length, 13 to 15 mm.

Male: face and front golden yellow pollinose, the face with golden hair; three or four pairs of black bristles in the mystax, the bristles along the oral opening yellow; ocellar tubercle brown; occiput cinereous pollinose and white pilose, shining black above, with thin brown pollen and black hair limited to the upper fourth. Cheeks with white hair. Palpi with black bristles, basally with short white hair. Antennae black, black haired, the third segment moderately wide, almost one-third longer than the basal two combined.

Thorax dark metallic blue-green or blue, the pleura whitish pollinose, humeral area and the sides more bronzed and with yellowish brown pollen. Hair black on the mesonotum and scutellum, white on the pleura, long on the front and posterior borders of the mesonotum and between the dorsocentrals, black on the upper part of the mesopleura, the trichostichal bristles black above, white on the lower half. Scutellum with three or four pairs of marginals.

Legs metallic blue, sometimes more or less violaceous, the coxae whitish pollinose and pilose; hair white, largely or mostly black on the upper surfaces of the femora and tibiae and entirely so on the tarsi; posterior trochanters with only a few black hairs.

Wings hyaline on the basal half, pale grayish behind, smoky on the apical half. Squamae with yellow fringe. Halteres brownish yellow, the base of the knob with a Y-shaped brown marking.

Abdomen metallic green-blue or blue, the sides with yellowish white hair except apically on the second segment, the venter with pale yellow hair. Genitalia moderately narrow (Pl. 1, fig. 8).

Female: the long hairs on the mesonotum are less numerous and do not extend over the disc between the dorsocentrals; hair on legs somewhat shorter.

Holotype: ♂, No. 4029, *allotype*: ♀, No. 4030, Mus. Calif. Acad. Sci., Ent.; and *paratypes*: three males, N.W. end of Bellona Island, June 22, 1933.

Maira, species No. 3

A single female, Kungava Bay, Rennell Island, June 16, 1933, differs from the preceding species in having only one pair of scutellar bristles, the lower pair of bristles of the face yellow, the front more golden and smaller size. It is only 8 mm. in length.

Ommatius excurrens Wulp

Ommatius excurrens Wulp, Tijd. v. Ent., xv, p. 265, 1872; *ibid*, xvi, plate 12, fig. 15.

Male and 4 ♀, N.W. end of Bellona Island, June 22, 1933.

The male agrees fairly well with the original description, but the anterior crossvein is situated at or beyond the middle of the discal cell and not before the middle. The figure shows the crossvein at the basal third of the discal cell. The male has the scutellum black haired, the female with mostly white hair.

BOMBYLIIDAE

There are two specimens of *Geron* in poor condition.

Geron simplex Walker

Geron simplex Walker, Proc. Linn. Soc. London, iii, p. 90.

Two females, N.W. end of Bellona Island, June 21, 1933.

These are placed tentatively as *simplex*. The mesonotum has a broad cinereous, median vitta on the anterior fourth.

EMPIDAE

The three species in the collection are undescribed.

Syneches matema Curran, new species

Related to *deficiens* Walker, but with brown wings. Length, 6 to 7 mm.

Male: black, the thorax and legs mostly rusty reddish yellow. Head black, the proboscis and palpi reddish; face cinereous pollinose. Hair yellowish on the occiput, black on the palpi, antennae and vertex. Antennae reddish, the third segment black, except basally; arista brown. Eyes with greatly enlarged facets on the upper half.

Thorax rusty reddish, the mesonotum with the anterior half or more brown on about the median half, but this color merges gradually into the reddish ground and the whole is moderately brownish pollinose. Hair and bristles black; scutellum bare on the disc, with a row of marginal hairs and bristles. Pleura thinly tawny pollinose, without hair.

Legs rusty reddish yellow, the posterior femora and tibiae black; apical segment of all the tarsi and the posterior coxae brown or ferruginous. Hair and bristles yellowish, black on the posterior legs and on the upper surface of the tibiae and tarsi. Posterior femora with a row of seven anteroventral bristles, the apical five arising from more or less strongly developed tubercles, the under surface with four or five tubercles apically, from which weak bristles or setulae arise; posterior tibiae with a row of about seven weak ventral tubercles.

Wings light brown, darker anteriorly. Squamae brown, the fringe pale. Halteres reddish yellow, the basal half of the knob more or less brown.

Abdomen brownish black, the first segment yellowish; venter yellowish basally, becoming brown apically. Hair black, long and yellow on the sides of the basal three segments. Genitalia small.

Female: the ventral tubercles on the posterior femora are stronger and each gives rise to a short bristle, the anteroventral tubercles are weak, those on the tibiae absent; abdomen with the basal segment reddish or brown.

Holotype: ♂, No. 4031, *allotype*: ♀, No. 4032, Mus. Calif. Acad. Sci., Ent.; *paratypes*: 2 ♂, 1 ♀, **Matema Islands, Santa Cruz Group**, July 9, 1933.

According to Melander's definition of the subgenera of *Syneches* this species would fall in *Harpamerus* Bigot, although it does not bear remarkably strong spines on the posterior femora. It seems to belong more properly in *Epiceia* Walker, but its position here is anomalous in view of the leg armature. I think that *Harpamerus* might well be considered distinct from *Syneches* and that *Epiceia* should be placed as a synonym of Bigot's genus, since these two subgenera have the third and fourth veins conspicuously convergent toward the apices. The recognition of genera and subgenera upon sexual characters does not seem to be sound policy, since it leaves one sex entirely undeterminable unless it can be associated with the determinable sex collected at the same time.

Drapetis confusa Curran, new species

Shining, black, the anterior half of the thorax and base of the abdomen reddish, the legs yellow. The male agrees well with the description of the Australian *bicolor* Bezzi, but there is a reddish brown band extending over the posterior border of the sternopleura from the middle coxae to the base of the wings, this band being reddish in the female. This band is not present in the female of *bicolor*. Length, 1.25 to 1.5 mm.

Female: head shining black, the bristles yellowish; front narrow, wedge-shaped; face obliterated by the contiguity of the eyes except above and below, or represented by a very fine line. Proboscis and palpi yellow. Antennae reddish yellow, the third segment and arista brown, the latter pubescent; third segment one-half longer than wide, moderately pointed.

Thorax red on the anterior half, the red color rectangularly produced posteriorly on the middle of the mesonotum and extending on the sternum to the middle coxae, a broad band extending upward over the middle of the pleura to the base of the wings, leaving a broad black band extending from the upper margin of the mesopleura to the middle of the sternopleura. Hair and bristles yellowish, the bristles on the posterior half black or brown. Scutellum with one pair of bristles, its apex rather transverse, the disc flattened.

Legs reddish yellow, the apical tarsal segment reddish brown; hair and bristles yellow.

Wings cinereous hyaline, the veins luteous or pale brown, yellow basally; hair on the basal two-thirds of the costa fairly long. Halteres pale yellow.

Abdomen shining black, the first segment broad; second and third reddish yellow or reddish, each with a triangular, brown lateral spot; sides of the fourth segment with semi-squamose, black hair. Genital lamellae brownish yellow.

Male: bristles of the thorax wholly yellow; median pale band on the pleura almost obsolete, rather ferruginous; third abdominal segment less extensively yellowish; sides of the fourth segment with simple hairs; genital appendages luteous; hair brown.

Holotype: ♀, No. 4033, Santa Catalina Island, Solomon Group, July 2, 1933; *allotype*: ♂, No. 4034, Mus. Calif. Acad. Sci., Ent., N.W. end of Bellona Island, June 21, 1933; *paratypes*: ♀, Santa Catalina Island, July 2, 1933, and ♀, Matema Island, Santa Cruz Group, July 7, 1933.

The abdomen may be contracted so that the second and third segments are largely concealed beneath the first, the yellow band therefore appearing quite narrow.

Drapetis crockeri Curran, new species

Black, the legs yellowish. Differs from *exul* O.S. in having pale yellow palpi. Length 1.5 mm.

Female: head shining black, the bristles black; front rather narrow; face linear, the eyes distinctly separated; palpi pale yellow. Antennae reddish, the third segment elongate, but not twice as long as the basal two together; arista brown, pubescent, somewhat longer than antenna.

Thorax shining black; hair and bristles yellow; disc of scutellum flattened, the apex rather truncate.

Legs pale reddish yellow, the apical segment of the tarsi brown; hair and bristles yellow; posterior tibiae with only one strong, anterodorsal bristle and without apical spine.

Wings cinereous hyaline; veins pale brown, yellow basally; costa without long hairs basally. Halteres white.

Abdomen shining black, the disc of the second and third segments reddish; lamellae of the ovipositor brownish. Hair black, the sides of the fourth segment without squamose hairs.

Holotype: ♀, No. 4035, Mus. Calif. Acad. Sci., Ent., **Puka Puka Island, Cook Islands**, April 9, 1933.

DOLICHOPIDAE

Most of the specimens belonging to this family are in poor condition or are females, and cannot be properly identified. The following species are among those collected.

Rhagoneurus hirsutisetus de Meijere

Rhagoneurus hirsutisetus de Meijere, Tijds. v. Ent., lix, p. 229, 1916.

Male, Malaita Island, May 30, 1933.

Sciapus evulgatus Becker

Sciapus evulgatus Becker, Cap. Zool., i, Deel 4, p. 205 (f).

Female: Matema Islands, July 10, 1933.

There is another species of *Sciapus* taken at the same place on July 8, 10.

Chrysosoma divisum Becker

Chrysosoma divisum Becker, Cap. Zool., i, Deel 4, p. 182.

Female: Florida Island, Sept. 11, 1927 (Whitney Expedition).

There is a single specimen of another species from Guadalcanar Island, May 20, 1933.

SYRPHIDAE

Only two specimens belonging to this family were collected.

Lathyrophthalmus punctulatus (Macquart)

Eristalis punctulata Macquart, Dipt. Exot., Suppl. 2, p. 59, 1847.

♂, ♀, Kungava Bay, Rennell Island, June 16, 1933.

PIPUNCULIDAE

This interesting family is represented by two specimens, one of them new to science.

Pipunculus synadelphus Perkins

Pipunculus synadelphus Perkins, Haw. Sug. Plant. Assoc., Ent. Bull. #1, p. 150 (f) 1905.

Female: Matema Islands, Santa Cruz Group, July 8, 1933.

Pipunculus matema Curran, new species

Black, the bases of the femora, tibiae and tarsi yellow; third antennal segment yellow. Length, 3.25 mm.

Male: face and front white; occiput cinereous white pollinose, becoming pale brown at the vertex; vertical triangle shining black. Eyes touching for a distance equal to the length of the frontal triangle. Proboscis and palpi yellow. Antennae brown; third segment yellow, acute below but not produced; arista brown, stout on the basal seventh.

Thorax black in ground color, the humeri yellow, cinereous pollinose, the mesonotum and scutellum brown pollinose, the former broadly cinereous in front of the base of the wings, the pollen on the lower edge of the scutellum with cinereous tinge. Hair brown, inconspicuous.

Coxae, femora and apical tarsal segment blackish, the coxae rather thickly pollinose and with pale apices; trochanters, bases and apices of the femora, tibiae and the basal four tarsal segments reddish yellow; femora thinly pale pollinose, with small setulae below apically, the tibiae without unusual hairs. Claws and pulvilli normal in size, yellow, the former with black apices.

Wings cinereous hyaline; stigma pale brown; third costal section one-fourth shorter than the fourth; anterior crossvein situated well before the middle of the discal cell. Squamae and halteres yellow.

Abdomen black, brown pollinose, the sides cinereous pollinose except on the broad bases of the segments, the pale pollen extending onto the dorsum but not forming entire bands, the inner ends of the spots acute; first segment wholly cinereous, the sides with black bristles. Fifth segment one-half longer than the fourth, longest on the right side. Genitalia brown, thinly pollinose, the appendages yellow, the apex with a moderately large, transverse, oval depression.

Holotype: male, No. 4036, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 7, 1933.

This species is related to *javanensis* de Meijere, but has the legs more extensively pale in color.

OTITIDAE

This family, generally known as Ortalidae or Platystomidae, is represented by seven species, belonging to four genera.

Rivellia Desvoidy

Two species, both widely distributed, are in the collection.

Rivellia basilaris (Wiedemann)

Trypeta basilaris Wiedemann, Aussereur. Zweifl., ii, p. 510, 1830.

Two specimens, one from Malaita Island, May 28, 1933, and one from Matema Islands, July 9, 1933.

Rusty reddish yellow, the abdomen usually mostly brown.

Rivellia fusca (Thomson)

Herina fusca Thomson, Eugenies Resa, Dipt., p. 575, 1868.

Three specimens from Malaita Island, May 30, 1933.

Blackish, the base of the abdomen more or less distinctly reddish or reddish yellow.

Scholastes Loew

Three species are before me from the Islands, all differing from described forms. I have enlarged Hendel's key to include these.

Table of Species

1. Face with a black or brown band lying mostly below the middle.....	2
-. Face without such band, sometimes with blackish lateral spots.....	5
2. Wings with two outstanding brown costal spots.....	<i>bimaculatus</i> Hendel
-. Wings rather uniformly checkered or banded, with only one outstanding costal spot.....	3
3. Pleura blackish, more or less stained with reddish and with pale stripe above, the sternum sometimes reddish in the middle.....	4
-. Pleura mostly pale, the pteropleura pale; antenna of both sexes with preapical lemalla.....	<i>palmyra</i> , n. sp.
4. Face reddish brown above; tibiae with black apical spot.....	<i>lonchifera</i> Hendel
-. Face yellowish above; tibiae wholly yellow.....	<i>solomensis</i> , n. sp.
5. Front in ♀ as wide as long, in male wider.....	6
-. Front one-fourth narrower than long.....	7
6. Posterior tibiae with brown apical band.....	<i>cinctus</i> Guerin
-. Posterior tibiae wholly yellowish.....	<i>whitneyi</i> , n. sp.
7. Coxae and femora brown.....	8
-. Coxae and femora wholly reddish yellow.....	<i>vicarius</i> Hendel
8. Face with two dark spots on the lower half.....	<i>distigma</i> Hendel
-. Face wholly yellowish.....	<i>frauenfeldi</i> Schiner

Scholastes palmyra Curran, new species

Plate 1, figure 5

Shining black, reddish yellow and stramineous, the wings hyaline and brown; arista with brown lamella in both sexes. Length, 7 to 8 mm.

Male: front brown, with a transverse, more or less interrupted median reddish fascia; a pale yellowish fascia extending over the lunula and reaching the orbits, and the vertex stramineous. One pair of frontal bristles and two pairs of verticals. Occiput yellowish, brown on about the upper third, the posterior orbits stramineous. Cheeks one-third as wide as the eye-height, broadly stramineous above. Face stramineous, with the parafacials and a broad band on the lower third brown or black. Proboscis and palpi reddish yellow. Antennae brownish red, the arista moderately long plumose to beyond the middle, and bearing a preapical black lamella, the apex whitish. Hair yellowish, the bristles black.

Mesonotum and scutellum shining black, with appressed tawny hair; a broad stramineous stripe extends from the humeri to the posterior calli, and broadly borders the scutellum except at the apex, the pale stripe being separated from the lateral margins behind the humeri and above the wings. Two pairs of weak dorsocentrals, the scutellum with three pairs of marginal bristles. Pleura mostly reddish yellow, but the mesopleura and sternopleura mostly black or reddish brown, the metanotum blackish; hair reddish yellow.

Legs reddish yellow, the apical three tarsal segments of the posterior legs black, the front tarsi black, with the basal segment mostly reddish yellow; tibiae each broadly brown apically on the upper half; hair rather golden from most views; bristles on front femora black.

Wings checkered with brown and cinereous hyaline as shown in figure 5 of Plate 1. Squamae white; halteres yellow.

Abdomen shining steel blue, the third and fourth segments with narrow yellow apices; hair yellow, sometimes broadly black on the sides. Genitalia mostly reddish.

Female: ovipositor brown.

Holotype: male, No. 4037, *allotype*: female, No. 4038, Mus. Calif. Acad. Sci., Ent.; *paratypes*: male and female, **Palmyra Island**, April 2, 1933. Paratypes in American Museum of Natural History.

Scholastes solomensis Curran, new species

Plate 1, figure 4

Blackish, the abdomen steel blue; pleura mostly black; legs reddish yellow, the anterior femora more than half brown. Wings cinereous hyaline and brown as in figure 4 of Plate 1. Length, 6 mm.

Female: front slightly longer than wide, brown, with a narrow median reddish fascia; lunula pale yellowish; one pair of frontals and two pairs of verticals. Occiput, cheeks and face reddish yellow; cheeks with a large brown spot above; face with a broad black fascia extending across the lower third, the parafacials brown. Proboscis brownish red, the palpi pale orange. Antennae reddish, the third segment broadly brown above and apically; arista plumose, the rays absent on the apical half of the upper surface; no lamella. Hair yellow, black on the palpi.

Thorax blackish brown; mesonotum with a lateral stramineous vitta which extends around the free border of the scutellum, the pale stripe separated from the lateral margins except on the humeri, and with indications of three reddish vittae

on the disc: from anterior view, thinly brown pollinose; two pairs of dorsocentral bristles and three pairs of marginal scutellars. Pleura with a broad stramineous stripe above in front of the wings, the pectus reddish in the middle. Hair black.

Legs reddish yellow; anterior femora rather extensively brown; apical two or three tarsal segments blackish; hair black, yellow on the ventral surfaces of the tibiae and on the pale tarsal segments.

Wings with brown markings as in figure 4 of Plate 1. Squamae cinereous; halteres pale yellow.

Abdomen steel-blue with the base broadly reddish; hair black, yellow on the basal segment; ovipositor brownish yellow.

Holotype: female, No. 4039, Mus. Calif. Acad. Sci., Ent., **Star Harbor, San Cristoval Island, July 1, 1933.**

Scholastes whitneyi Curran, new species

Plate 1, figure 3

Front as wide as long; pleura and legs reddish yellow, the apical two or three tarsal segments black; mesonotum shining black; abdomen steel blue; ovipositor reddish on the apical half; wings with irregular brown fasciae. Length about 9 mm.

Female: head dark rusty reddish, the cheeks and face somewhat paler; hair yellow, brown on the front; the hairs along the inner edge of the parafacials below, a few of the upper orbital cilia and most of the hairs on the palpi black. Arista brown on the apical half, plumose on the basal four-fifths; first antennal segment with a long, fine bristle below.

Mesonotum shining black, reddish in front of the suture except toward the sides, and with a faint reddish vitta connecting with a pale yellow stripe originating on the posterior calli, the free margin of the scutellum also broadly pale yellow; humeri mostly reddish, a yellow triangle immediately behind them, narrowly separated from the lateral margin; hair black; three pairs of dorsocentrals and three pairs of marginal scutellars. Pleura pale orange, with paler stripe above, the hair almost all reddish yellow, the mesopleura and pteropleura with some fine black hairs above.

Legs reddish yellow, the apical two or three tarsal segments black; hair yellowish, black on the apical tarsal segments.

Wings cinereous hyaline, with irregular brown fasciae as in figure 3 of Plate 1. Squamae dull yellowish; halteres reddish yellow.

Abdomen metallic steel blue, the basal segment broadly reddish on the sides; hair black, yellow on the basal segment. Venter mostly reddish, becoming brown apically. Ovipositor shining black, the narrow portion reddish.

Holotype: female, **Guadalcantar Island, July 1927** (Whitney South Sea Expedition).

Euprosopia lepida Curran, new species

Plate 1, figure 2

Differs from *fusifacies* Walker in having the apical two transverse brown fasciae on the wings broadly united posteriorly; abdomen sparsely clothed with scales. Length, 7 to 10.5 mm.

Male: head yellowish in ground color, the upper half of the occiput and a very broad band extending to the anterior part of the oral margin black; frontal vitta dark reddish with a brownish area above the lunule; occiput, narrow frontal orbits and the upper half of the parafacials white pollinose; facial keel very broad and transversely wrinkled. Proboscis brown; clypeus and palpi deep black, the former with a more or less distinct reddish triangle in the middle, the palpi with a narrow white tip. Antennae light ferruginous, the arista with moderately long rays on practically its whole length. One pair of vertical bristles. Head distinctly higher than wide.

Thorax slate-colored, the pleura and sides of the mesonotum thickly cinereous white pollinose, the mesonotum with a moderately broad ashy median vitta, the transverse suture narrowly whitish. Scutellum clothed with appressed yellow hair and bearing four marginal bristles, the apex convex or very slightly concave, without shining areas; mesonotum and mesopleura with short black hair, the former with some pale hairs on the median vitta and on the humeri; pleural hair pale yellow.

Legs black, the femora in part more or less reddish, the tibiae dull reddish beneath on about the basal half.

Wings brown and hyaline, as shown in figure 2 of Plate 1. Squamae grayish white, the halteres yellow.

Abdomen slate-colored, with short, appressed black hair, the middle of the dorsum with a broad, longitudinal stripe of pale yellowish hair, the whole with sparse, appressed, yellow scales. Venter with yellow hair, the third sternite broad and with rather dense, bright yellow hair. Genitalia shining brown, clothed with white hair.

Female: ovipositor shining black, pale haired below, black laterally; third sternite without abundant hair.

Holotype: male and *allotype*: female, **Guadalcantar Island**, July, 1927 (Whitney South Sea Expedition) in American Museum of Natural History; *paratype*: male, **Guadalcantar Island**, May 23, 1933, in the Museum of the California Academy of Sciences.

Naupoda Osten Sacken

The single species, collected by the Whitney South Sea Expedition, is apparently undescribed.

Naupoda ventralis Curran, new species

Plate 2, figure 7

Black, the head, most of the legs and the abdominal venter orange; pleura with stramineous stripe above; wings brown basally and bearing three rows of brownish yellow spots. Length, 4.5 to 5 mm.

Female: head orange, the front above with a pair of large, shining, darker areas occupying most of the vertical region; occiput black on the upper half except along the orbits. Hair black, yellow on the occiput. Arista mostly brown, sparsely long pubescent.

Thorax shining black, with sparse black hair, the mesonotum with an impressed, closely setulose line toward either side; pleura with a narrow stramineous line above. Scutellum with a subrectangular bare area apically, bearing two pairs of marginal bristles on the apical half.

Legs orange; the posterior four coxae and femora black, the latter orange on about the apical third; hair yellowish, mostly black on the black portions of the femora.

Wings brown, brownish yellow and hyaline, as in figure 7 of Plate 2.

Abdomen shining black above, the venter and ovipositor orange. Hair on the middle of the dorsum rather long, erect and yellow, laterally short, appressed and black.

Holotype: ♀, **Choiseul Island**, November 26, 1927; *paratype*: female, **Malaita Island**, both collected by the Whitney South Sea Expedition. Type in the American Museum of Natural History, the paratype deposited in the Museum of the California Academy of Sciences.

In Hendel's key (1914), traces to *platessa* O.S. but may be at once distinguished by the much larger discal cell and probably the orange venter. Osten Sacken described the abdomen as "black."

TRUPANEIDAE

Of the five species in the collections before me three are evidently undescribed.

Bactrocera umbrosa (Fabricius)

Dacus umbrosus Fabricius, Syst. Antl., p. 274, 1805.

Dacus umbrosus Wiedemann, 1830, Aussereur. Zweifl., ii, p. 517.

One female, Matema Islands, Santa Cruz Group, July 8, 1933.

Themarohystrix Hendel

1914, Wien. Ent. Zeitung, xxxiii, p. 78.

1915, Ann. Mus. Nat. Hung., xiii, p. 432.

The single specimen belonging to this genus differs from *erinaceus* Hendel in wing markings, entire black abdominal fasciae, etc.

Themarohystrix exul Curran, new species

Plate 1, figure 6

Length, 7.5 mm.

Female: head dark reddish yellow, the face with a rectangular black spot in the middle, the front with a wide brown vitta extending from the black ocellar triangle to the anterior border. Front with almost parallel sides, one-third the width of the head; three pairs of frontals, the upper pair reclinate; frontal vitta with very fine hair; ocellars quite weak; outer verticals apparently weak. Occipital cilia black. Cheeks a little wider than the third antennal segment. Proboscis and

palpi orange, the latter normally clavate. Antennae dull orange, the third segment more or less tinged with brown; arista black with the base pale, the rays of moderate length.

Thorax reddish yellow, with ten black vittae, six on the mesonotum and four on the pleura. The dorsocentral black vittae extend the whole length and are united with each other and with the short sublateral vittae by a black prescutellar band, the sublateral vittae extending forward to the suture; the lateral vittae extend from the humeri to the base of the wing; the upper vitta on the pleura extends from the middle of the propleura to the middle of the pteropleura, while the lower vitta extends from above the front coxae almost to the posterior edge of the sternopleura. Hair and bristles black; one pair of dorsocentrals, situated well behind the supra-alars; scutellum with six strong marginals; mesopleura with several weak bristles in the middle below; propleural hair reddish.

Legs dark reddish yellow, the posterior femora more or less brown in front; hair and bristles black; the hair yellow on the tibiae and tarsi; middle femora with a row of bristles on the apical third in front; posterior femora with a bristle on the ventral surface before the middle, two preapical dorsal bristles, a row of weak anteroventral bristles on the apical fourth; posterior tibiae with three to five weak anterodorsal and anteroventral bristles.

Wings brown and pale orange as in figure 6 of Plate 1, the first, third and fifth veins bristled. Halteres yellow.

Abdomen pale orange, with black fasciae; second segment black with the anterior and posterior borders broadly pale, the third and fourth segments each with a broadly interrupted black fascia, the fifth short with the sides black, the black fasciae connected along the lateral margins; ovipositor black. Hair black, the second to fourth segments with weak marginal bristles, those on the fourth becoming strong laterally. Venter wholly pale orange.

Holotype: female, **Mouo Island**, December 7, 1927 (Whitney Expedition).

Rhabdochaeta de Meijere

The genus was established in 1904 for a new species (*pulchella*) from Java. The species before me differs mainly in the radiations extending to the margin of the wing.

Rhabdochaeta crockeri Curran, new species

Plate 2, figure 6

Black, reddish and yellow, with cinereous pollen. Length, 2.25 mm.

Female: head reddish yellow, thinly white pollinose. Front anteriorly half the width of the head, widening posteriorly, bearing two pairs of large black frontals and a pair of black verticals, and three pairs of shorter white frontals: across the middle a row of four intrafrontals and immediately in front of the middle pair a second pair. Hair and bristles white. Palpi with a narrow black border and with small black bristles apically. Third antennal segment rather long and pointed, sub-triangular, gently convex below; arista yellow, pubescent.

Thorax black, cinereous pollinose; sides of the mesonotum, upper and broad anterior border of the pleura reddish yellow in ground color, the pleural sutures more or less reddish yellow. Hair very pale yellow, a few black hairs on the middle of the mesonotum in front; bristles black or brown, the lateral ones more or less

yellowish; two pairs of dorsocentrals, the anterior pair situated close to the suture; two pairs of scutellars, the basal pair black and long, the apical pair sub-erect, short and pale yellow; a pair of black hairs on the tip of the scutellum, the disc bare.

Legs wholly reddish yellow, the hairs and bristles yellow.

Wings (Pl. 2, fig. 6) cinereous hyaline, yellowish on the basal third, with large, black discal spot and dark brown radiations, the markings brown behind the spot, the dark area with some pure white punctures and shining areas; third vein bare; costal border deeply incised at the tip of the subcostal vein, the costal bristles moderately long.

Abdomen black, cinereous pollinose, the disc reddish on the basal half; ovipositor shining reddish with the base, and apex of the preceding segment, shining black. Hair and bristles pale yellow, the fifth segment with a black apical bristle on each side; a few tiny black hairs laterally on the apical segments.

Holotype: ♀, No. 4040, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 9, 1933; *paratype*: ♀, **Tai Lagoon, Malaita Island**, May 30, 1933.

***Paroxyna parca* (Bezzi)**

Oxyna parca Bezzi, Mem. Ind. Mus., iii, p. 159, 1913 (f).

Female: Tai Lagoon, Malaita Island, June 30, 1933.

***Platensina* Enderlein**

This genus is closely related to *Xanthomyia* Phillips (North America), but differs in having the palpi of ordinary size. In *Xanthomyia* the palpi are greatly broadened. Both genera have the costal bristles quite long and the wing venation is similar.

***Platensina malaita* Curran, new species**

Plate 1, figure 1

With wing markings as in *zodiacalis* Bezzi but with two pairs of scutellar bristles. Length, 4 mm.

Female: head dull reddish; face yellow, the frontal orbits with a broad cinereous border anteriorly; four pairs of black frontals, the upper pair reclinate and a pair of weaker, mostly yellowish reclinate frontals; parafrontals with tiny yellowish hairs; ocellars long and black; occipital hairs and bristles pale yellowish. Cheeks narrow, with a row of tiny black hairs below and a black bristle posteriorly. Proboscis and palpi reddish yellow, the palpi narrow and with black bristles apically. Antennae reddish yellow; third segment sharply rounded at upper apex; arista brown, pubescent.

Thorax black above and posteriorly, cinereous pollinose, the humeri, pleura except behind, and the pectus dull reddish; hair brassy yellow; bristles black or brown; mesonotum with trace of four brown vittae, the dorsocentrals arising from brown spots. Scutellum with the free border shining dull reddish, bearing two pairs of marginal bristles.

Legs reddish, with black hair, the bristles on the anterior femora black.

Wings dark brown, with hyaline spots as shown in figure. Halteres yellow with brown knobs.

Abdomen blackish brown, the first to third segments cinereous pollinose with very broad, interrupted brown posterior fasciae, the following segments and ovipositor shining brown. Hair black.

Holotype: female, No. 4041, Mus. Calif. Acad. Sci., Ent., **Tai Lagoon, Malaita Island**, May 30, 1933.

LONCHAEIDAE

The two species are known to science, *L. aurea* being widely distributed in Africa and the Oriental Region.

Lonchaea aurea Macquart

Lonchaea aurea Macquart, Dipt. Exot., Suppl. iv, p. 300, 1850.

Male: Matema Islands, Santa Cruz Group, July 10, 1933; ♂, Anuda Island, July 15, 1933.

Lonchaea atratula Walker

Lonchaea atratula Walker, Proc. Linn. Soc. London, iv, p. 146, 1840.

Male: Santa Catalina Island, July 2, 1933; ♂, Santa Ana Island, July 3, 1933; ♀, San Cristoval Island, July 4, 1933.

It is impossible to be certain of the identity of *atratula* but the specimens agree well with the description. The arista is rather short plumose, the scutellum bears three hairs on the margin outside the apical bristles and usually a pair between the apicals. The wings are brown, becoming gray posteriorly.

CALOBATIDAE

I have before me, from Malaita Island (Whitney Expedition), a poorly preserved specimen belonging to the genus *Mimegralla* Enderlein.

NERIIDAE

Telostylus lineolatus (Wiedemann)

Nerius lineolatus Wiedemann, Aussereur. Zweifl., ii, p. 552, 1830; Kertész, Termes Fuzetek, xxii, p. 181; Enderlein, Arch. Naturg., lxxxviii, A, Heft 5, p. 143.

Two ♂, 3 ♀, Anuda Island, June 17, July 15, 1933; ♀, San Cristoval Island, July 1, 1933; ♀, N.W. end of Bellona Island, June 19, 1933; 2 ♀, Matema Island, Santa Cruz Group, July 7, 1933.

I am by no means certain that the determination of these specimens is correct, since the identity of *lineolatus* is rather uncertain.

The species was described from a female, and the males previously associated with it are said to have reddish antennae. In my specimens the antennae are brown with the inner side mostly red in both sexes, and the arista has a narrow, sub-basal whitish band; the legs are brown, the tibiae being of a more reddish shade, the posterior femora sometimes with a trace of a reddish, preapical band. The wings are rather grayish, the tips of the second and third veins clouded with brown, the costal area somewhat luteous on the basal half. The yellow median vitta on the mesonotum extends to the tip of the scutellum and the sides of the latter are broadly translucent brownish yellow. The males lack the short bristles on the front coxae.

Wiedemann makes no mention of the median vitta on the mesonotum, but Enderlein, who examined the type, stated that it agreed with the description of *mocsaryi* Kertész, in which the vitta is well marked. Kertész had *lineolatus* before him when he described *mocsaryi*, but gave no description. *Nerius striatus* Doleschall, from Java, agrees, insofar as the very brief description goes, with my specimens, except that the wings are stated to be hyaline, and the figure on plate II might well represent the specimens before me.

The form recorded by Bezzi from the Fiji Islands has a row of bristles on the front coxae, in addition to the apical ones, and, if my determination is correct, represents a different species.

SEPSIDAE

There are three species of *Sepsis* in the collection, separable as follows:

1. Wings with subapical black spot. *plebeia* de Meijere
- . Wings without apical spot. 2
2. Thorax mostly reddish. *spectabilis* de Meijere
- . Thorax black; mesonotum brownish pollinose and without acrostical setulae; legs mostly yellowish. *javanica* de Meijere

Sepsis plebeia de Meijere

Sepsis plebeia de Meijere, Ann. Mus. Nat. Hung., iv, p. 171, 1906 (f).

♂, ♀, Matema Islands, Santa Cruz group, July 8, 1933; ♂, 2 ♀, Matema Island, Santa Cruz Islands, July 2, 1933.

Sepsis spectabilis de Meijere

Sepsis spectabilis de Meijere, Ann. Mus. Nat. Hung., iv, p. 178, 1906 (f).

♀, N.W. end of Bellona Island, June 22, 1933.

Sepsis javanica de Meijere

Sepsis javanica de Meijere, 1904, Bijdr. Dierkunde, Afl. 17-18, p. 107; 1906, Ann. Mus. Nat. Hung., iv, p. 184 (f).

Two ♀, Matema Island, Santa Cruz Group, July 7, 1933; 2 ♀, Guadalcanar Island, May 20, 1933 and ♀, San Cristoval Island, July 1, 1933.

LAUXANIIDAE

The collection contains several undescribed species in addition to a number recorded from other islands. It is possible that some of the species identified may be distinct, since many of the species in the family are very similar in appearance and descriptions based entirely on color are not satisfactory.

Steganopsis solomensis Curran, new species

Plate 2, figure 5

Related to *multilineata* de Meijere but at once distinguished by the yellow halteres and wing pattern; front dull metallic green, with two or three transverse ridges, the sides broadly pollinose. Length, 2.5 to 3 mm.

Female: head black, the face and front green in ground color; face and occiput white pollinose, the face with an incomplete longitudinal bare stripe in the middle; frontal orbits thickly cinereous yellow pollinose; the frontal stripe with two or three low, transverse ridges, sometimes more extensively wrinkled. Cheeks white pollinose above, narrower than the third antennal segment. Proboscis brown; palpi black. Antennae reddish, the third segment brown on the apical three-fourths, about four times as long as wide, gently concave above, its apex obtusely rounded; arista black, moderately long plumose.

Mesonotum broadly brown pollinose in the middle, with alternate, irregular cinereous and black stripes laterally (about eight cinereous vittae); three or four pairs of acrostical bristles, the anterior ones weak, and an irregular row of hairs outside them; three pairs of dorsocentrals, the anterior ones weaker; no intra-alar; two sternopleurals, the pteropleura bare. Scutellum large, very gently convex, brownish pollinose, the immediate border cinereous. Pleura with a large silvery white spot below the humeri and another along the upper edge of the sternopleura.

Legs black, the basal three segments of the posterior four tarsi, and two of the anterior pair, pale yellow.

Wings brown and cinereous hyaline as in figure 5 of Plate 2. Squamae pale yellow, the fringe partly brown. Halteres yellow.

Abdomen brownish black, obscurely yellowish brown pollinose.

Holotype: ♀, No. 4042, Mus. Calif. Acad. Sci., Ent., and 2 ♀ *paratypes*: Santa Catalina Island, Solomon Islands, July 2, 1933.

Steganopsis ceres Curran, new species

Related to *annulipes* Malloch, but at once distinguished by the color of the wings and legs. Length, 2.5 mm.

Female: head brown in ground color; occiput white, face cinereous, more than the lateral fourth of the front cinereous yellow pollinose, the middle two-fifths of the front dull green, very thinly pollinose, without transverse ridges; ocellars minute. Cheeks very narrow, white above. Proboscis and palpi brown. Antennae reddish, the broad apex of the third segment brown; arista brown, with long rays above and short ones below.

Mesonotum cinereous pollinose, with brown dots and eight irregular brown vittae; four or five pairs of acrostichals and three pairs of dorsocentrals. Scutellum brownish, the free border and a small lateral spot on each side near the base cinereous. Pleura brown, thinly pale pollinose behind, with a large cinereous white spot below the humeri produced almost to the posterior edge of the mesopleura above, a large area covering the middle of the mesopleura and a broad band on the upper border of the sternopleura similarly pollinose; pteropleura bare.

Legs black, the basal three segments of the tarsi yellow.

Wings brown and cinereous hyaline as in *solomensis*.

Abdomen slightly shining brown.

Holotype: female, No. 4043, Mus. Calif. Acad. Sci., Ent., **Guadalupe Island**, May 23, 1933.

Maquilingia Malloch

1929, Proc. U. S. Nat. Mus., lxxiv, Art. 6, p. 35.

There are two species before me agreeing in having four rows of acrostichal hairs, the lateral rows situated on brown vittae and therefore not conspicuous. In one species the anterior frontal bristles are decidedly convergent, but in the other they are probably reclinate: it is not possible to be certain as the single remaining anterior bristle has been bent out of position.

Key to Species

- 1. A brown spot on the facial grooves below the antennae..... 2
- No brown spot on the face below the antennae..... *malaita*, n. sp.
- 2. Front with a median brown vitta extending forward from the ocelli..... 3
- Front without median vitta (Philippines)..... *facialis* Malloch
- 3. Cheeks with a row of three or four bristles below; abdomen pale brownish with a median vitta and the segmental apices broadly yellow....
- *malema*, n. sp.
- Cheeks with a single strong bristle below; abdomen yellow with the segmental apices narrowly brown (Philippines)..... *hirticeps* Malloch

Maquilingia malaita Curran, new species

Yellow, thinly white pollinose, marked with brown. Length, 2.5 mm.

Female: head yellow; ocellar spot, an incomplete, narrow median vitta, a broad stripe extending from the orbits to the antennae and the occiput behind the middle of the eyes brown. Anterior frontal bristle probably reclinate (perhaps incurved),

the front moderately haired on the anterior half. Cheeks with sparse hair and a strong bristle near the anterior third below. Proboscis, palpi and antennae reddish yellow, the arista brown, very short pubescent.

Mesonotum with a pair of narrow dorsocentral vittae, a narrow subdorsal vitta on either side behind the suture and the sides, very broadly pale brown, the metanotum brown. Hair black; presutural bristle weak. Scutellum reddish yellow, with a brown vitta on each side.

Legs with only the apical tarsal segment brown.

Wings cinereous hyaline, the veins luteous. Squamae and fringe yellow. Halteres yellow.

Abdomen yellow, the second to fifth segments each with the apical third brown. Hair black.

Holotype: female, **Malaita Island** (Whitney Expedition).

Maquilingia matema Curran, new species

Readily distinguished from *malaita* by the presence of a large brown spot on the sternopleura, entire brown frontal vitta, mostly brown abdomen, etc. Length, 2.75 mm.

Female: head yellow, ocellar spot, a broad spot extending from the orbits to the base of the antennae and a large spot on either side below the antennae dark brown; front with a slender, entire median vitta, the anterior frontals convergent, the hair sparse; cheeks with a slender brownish fascia anteriorly and another behind, the occiput more or less brown behind the eyes. Cheeks wide, with sparse hairs and a row of four or five bristles below. Proboscis and palpi yellow. Antennae brownish red, the arista brown, reddish basally, pubescent.

Mesonotum brown, with a very broad median yellow vitta and narrow ones along the line of the dorsocentrals; acrostichal hairs in four rows; scutellum with a pair of large, subtriangular, medianly connected, brown spots basally. Metanotum brownish; pleura and scutellum pale yellow, the sternopleura with a large brown spot above. Presutural bristle strong.

Legs yellow with the tarsi slightly darkening apically; anterior femora with a row of posteroventral bristles.

Wings cinereous hyaline, the veins luteous; crossveins narrowly and weakly clouded with brown. Squamae, their fringe and the halteres pale yellow.

Abdomen yellow, the basal half of the second to fifth segment, expanding to the whole length on either side of the broad median vitta, pale brown, the sixth segment with less than the basal third brownish on either side. Hair black.

Holotype: female, No. 4044, Mus. Calif. Acad. Sci., Ent., **Matema Islands, Santa Cruz Group**, July 8, 1933.

In both the above species the head is shaped very much as in *Trigonometopus* Loew.

Minettia Desvoidy

In the following key I have included two species that apparently belong in *Homoneura*. These two have the intra-alar bristle distinctly developed but it is not as strong as is usual in *Minettia*.

- 1. Mesonotum blackish, grayish, or with brown vittae..... 2
- Mesonotum wholly shining rusty reddish; arista plumose.... *H. orientis* Hendel
- 2. Mesonotum mostly black in ground color..... 3
- Mesonotum yellowish, with two brown vittae..... *ethelia*, n. sp.
- 3. Mesonotum grayish, with four distinct brown vittae..... *obscura* de Meijere
- Mesonotum not vittate..... 4
- 4. Mesonotum shining, at most weakly pollinose..... *surda*, n. sp.
- Mesonotum cinereous pollinose..... *H. anuda* Curran

Minettia surda Curran, new species

Shining black; arista plumose; two sternopleurals. Length, 3.5 mm.

Female: head brownish, thinly cinereous pollinose, except on the front, the parafrontals thinly pollinose, except anteriorly. Ocellars much weaker than the anterior frontals; cheeks narrow. Proboscis brownish red; palpi reddish. Antennae reddish, the third segment mostly brown, about one-half longer than wide; arista black, moderately long plumose.

Thorax shining brownish black, the anterior border and postalar calli reddish; pleura thinly pollinose. Eight rows of acrostichal hairs; three pairs of postsutural dorsocentrals, the anterior pair situated close to the suture; two sternopleurals; pteropleura bare.

Legs reddish yellow, the anterior coxae black in front; posterior four femora black with the apices broadly reddish yellow. Anterior femora with a row of posteroventral, posterior and posterodorsal bristles and with the comb of tiny bristles; middle femora with very weak anteroventral and posteroventral bristles, with four stronger anterior bristles on the apical half; posterior femora with a very weak row of anteroventral bristles and without a preapical anterodorsal bristle.

Wings cinereous hyaline, the veins luteous; border of the squamae and the fringe brown. Halteres reddish yellow.

Abdomen shining brownish black, the bristles weak.

Holotype: female, No. 4045, Mus. Calif. Acad. Sci., Ent., Uras Cove, Malaita Island, May 28, 1933.

Minettia ethelia Curran, new species

Plate 2, figures 1, 4

Rusty reddish yellow; mesonotum with two brown vittae; abdomen usually with two or three pairs of small brown spots. Length, 3.5 to 4 mm.

Male: head reddish yellow, thinly white pollinose, the face white. Ocellars much weaker than the anterior frontals. Cheeks much narrower than the third antennal segment. Proboscis and palpi reddish yellow, the palpi with the apices brownish. Antennae reddish yellow, the third segment slightly darkened on the apical half, one-half longer than wide, arista blackish, long pubescent.

Thorax yellowish, the mesonotum pale rusty reddish, with a pair of broad, brown vittae lying just inside the dorsocentral bristles and extending weakly over the scutellum, between the vittae with evident whitish pollen. Eight rows of acrostichal hairs; three pairs of dorsocentrals; two sternopleurals, the pteropleura bare.

Legs reddish yellow. Anterior femora with a row of strong posteroventral and posterodorsal bristles and two weaker bristles below the dorsal row apically, and with the comb of tiny bristles; middle femora with very weak ventral bristles on both edges and with a row of strong anterior bristles on the apical half; posterior femora with a row of weak anteroventral bristles on the apical third and with a weak, preapical anterodorsal bristle.

Wings cinereous hyaline. Squamae with brown border and brownish yellow fringe. Halteres yellow.

Abdomen yellow or reddish yellow, toward either side on the fourth to sixth segments with a small, round blackish spot, the first and third pairs sometimes absent or almost so. Bristles moderately strong. Genitalia reddish yellow.

Female: the abdominal spots appear to be more diffuse, slightly larger, but less conspicuous.

Holotype: ♂, No. 4046, *allotype*: ♀, No. 4047, Mus. Calif. Acad. Sci., Ent., and *paratypes*: 4 ♂, 2 ♀ **Nupani Island, Santa Cruz Group**, May 8, 1933; *paratypes*: two males, **Matema Island, Santa Cruz Group**, July 2, 7, 1933.

Two of the females have the abdomen somewhat crushed, so I am unable to determine the amount of variation in the dark spots.

Homoneura Wulp

A key is given below to the species contained in the collection, four of which are described for the first time.

Table of Species

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 1. Arista plumose, the rays arising on the upper and lower surfaces. | 2 |
| -. Arista pubescent, the rays usually arising from all surfaces, or little more than twice as long as the basal thickness of the arista. | 7 |
| 2. Shining blackish species. <i>signatifrons</i> Kertész | |
| -. Not shining black. | 3 |
| 3. Mesonotum uniformly yellowish. | 5 |
| -. Mesonotum vittate or cinereous. | 4 |
| 4. Mesonotum yellowish, with six brown vittae; wings with brown spots in addition to those on the crossveins. <i>punctipennis</i> de Meijere | |
| -. Mesonotum cinereous with the sides blackish; crossveins slightly clouded with brown. <i>viatrix</i> de Meijere | |
| 5. Anterior border of the wing broadly brownish. <i>laticosta</i> Thomson | |
| -. Wings not brown in front, at most the crossveins clouded. | 6 |
| 6. Abdomen without black spots; pteropleura with several hairs. <i>distincta</i> Kertész | |
| -. Abdomen with one or two pairs of round blackish spots apically; pteropleura bare. <i>orientalis</i> Hendel | |
| 7. Mesonotum black in ground color, cinereous pollinose. <i>anuda</i> , n. sp. | |
| -. Mesonotum reddish yellow in ground color. | 8 |
| 8. Abdomen with three series of black spots, at least on one segment. | 10 |
| -. Abdomen with only paired black spots. | 9 |
| 9. Abdomen with only one pair of black spots, on the sixth segment. <i>acrostichalis</i> de Meijere | |
| -. Abdomen with black fasciae. <i>whitneyi</i> , n. sp. | |

10. Abdomen with median black spots on the third to fifth segments.
 *monticola* de Meijere
 - Abdomen with median black spot only on the fifth or sixth segment. 11
11. Pteropleura with several small black hairs; median black spot situated
 on the sixth abdominal segment. *crockeri*, n. sp.
 - Pteropleura bare; median black spot on the fifth abdominal segment.
 *sikaiana*, n. sp.

Homoneura signatifrons (Kertesz)

Sapromyza signatifrons Kertesz, Termes. Fuzet., xxiii, p. 264, 1900.

Nine ♂, 3 ♀, Santa Catalina Island, Solomon Group, July 2, 1933; ♂, Malaita Island, May 28, 1933.

Homoneura viatrix (de Meijere)

Lauxania viatrix de Meijere, Tijd. v. Ent., lviii, suppl., p. 51, 1915.

♂, ♀, Santa Catalina Island, Solomon Group, July 2, 1933;
 ♂, N. W. end of Bellona Island, June 21, 1933.

Homoneura punctipennis (de Meijere)

Sapromyza punctipennis de Meijere, Tijd. v. Ent., li, p. 143, 1908.

Twelve ♂, 3 ♀, Santa Catalina Island, Solomon Group, July 2, 1933.

Homoneura laticosta (Thomson)

Geomyza laticosta Thomson, Eugenes Resa, p. 598, 1868.

Sapromyza singaporensis Kertesz, Termes. Fuzet., xxiii, p. 261, 1900.

Two females, Tai Lagoon, Malaita Island, May 30, 1933.

Homoneura orientis Hendel

Sapromyza orientalis Kertesz, Termes. Fuzet., xxiii, p. 272, 1900; (not Wiedemann).

Sapromyza orientis Hendel, Gen. Insectorum, No. 68, p. 42, July, 1908.

Sapromyza Kerteszi de Meijere, Tijd. v. Ent., li, p. 145, September, 1908.

Lauxania bioculata de Meijere, 1914, Tijd. v. Ent., lvii, p. 225, 1914.

H. bioculata and *kerteszi* Malloch, Proc. U. S. N. M., lxxiv, Art. 6, p. 78, 1929.

Rusty reddish yellow; arista plumose. Length, 3 mm.

Male: head thinly whitish pollinose except on the frontal vitta; ocellars not more than two-thirds as long as the anterior frontals; cheeks narrow. Proboscis pale orange, the palpi yellow. Antennae pale orange, the third segment brown on

the apical half, slightly tapering, about one-half longer than wide; arista black, with moderately long rays above and short ones below.

Thorax reddish yellow, the mesonotum darker; eight rows of acrostical hairs; three pairs of postsutural dorsocentrals, the anterior pair close to the suture; two sternopleurals; pteropleura bare. The intra-alar bristle is distinct.

Legs reddish yellow; anterior femora with strong posteroventral and postero-dorsal bristles, with two weaker bristles apically below the posterodorsal row and with the comb of tiny setulae; middle femora with only bristles on the apical half of the anterior surface; posterior femora with a preapical anterodorsal and postero-ventral bristle.

Wings cinereous hyaline, with slight luteous tinge. Squamae and halteres yellow.

Abdomen rusty reddish yellow, the abdomen with one or two pairs of lateral black spots on the fourth and fifth segments, and, rarely, a narrow black median dash on the anterior half of the fifth; bristles moderately strong.

Five ♂, 1 ♀, Santa Catalina Island, July 2, 1933; 6 ♂, 4 ♀, Anuda Island, July 15, 16, 18, 1933; ♂, Matema Island, Santa Cruz Islands, July 7, 1933; 2 ♂, ♀, Matema Island, July 8, 1933.

There are two females from Nupani Island that are evidently different since the orbits are strongly tinged with brown. Both are somewhat teneral, and the color may not be natural. It is possible that this may not be *orientis* but the specimens agree with the descriptions given by Kertész and de Meijere. Some specimens have the third antennal segment a little more than half brownish while others have it wholly reddish. About half the specimens have two pairs of black spots on the abdomen while others have only those on the fifth segment and only one shows the central black streak on this segment.

***Homoneura distincta* (Kertész)**

Sapromyza distincta Kertész, Termes. Fuzet., xxiii, p. 275, 1900.

Three ♀, Santa Catalina Island, Solomon Group, July 2, 1933.

***Homoneura acrostichalis* (de Meijere)**

Lauxania acrostichalis de Meijere, Tijds. v. Ent., lviii, suppl. p. 51, 1915.

Two ♂, 3 ♀, Anuda Island, July 15, 18, 1933; ♀, Sikaiana Island, Stewart Group, May 15, 1933.

***Homoneura monticola* de Meijere**

Lauxania monticola de Meijere, Tijds. v. Ent., lix, p. 203, 1916.

Female, Kungava Bay, Rennell Island, June 16, 1933.

Homoneura anuda Curran, new species

Plate 2, figure 8

Arista pubescent; thorax blackish, cinereous pollinose; abdomen with broad brown bands. Length, 4.5 mm.

Male: head reddish in ground color; front brownish yellow pollinose, the orbits yellowish; occiput with whitish pollen, the cheeks and face brownish yellow pollinose, except for a paler spot below each antenna. Cheeks moderately wide, a small brown spot immediately below each eye, a brown line extending across the upper edge of the supra-oral depression; sides of face not or scarcely swollen below. Proboscis brownish; palpi reddish yellow. Antennae dull orange, the third segment not twice as long as wide; arista brown except basally, moderately long pubescent.

Thorax blackish in ground color, the humeri and an adjacent spot inside them, the posterior calli and the broad free border of the scutellum yellow, the dark part densely cinereous pollinose. Acrostical hairs in eight rows, only the prescutellars strong; three pairs of strong postsutural dorsocentrals, the anterior pair situated close to the suture; a weak intra-alar bristle; pteropleura with a few black hairs; two sternopleurals.

Coxae and femora black, the apices of the latter reddish; tibiae and tarsi reddish yellow. Anterior femora with the anterior comb of tiny bristles, an incomplete row of posterodorsal bristles and a complete row of posteroventrals; middle femora with a row of anterior bristles on the apical half and complete rows of antero- and posteroventral bristles; posterior femora with a row of anteroventral bristles that become weak basally and a moderately strong preapical anterodorsal bristle; tibiae with only the preapical and apical bristles.

Wings cinereous hyaline, the veins luteous, yellow at the extreme base. Squamae with luteous tinge. Halteres yellow.

Abdomen with the third and fourth segments brown with the apices very broadly yellow, the first and second segments ferruginous with yellow apices, the fifth yellow with a large black spot on each side, the sixth small and wholly yellow. Genitalia reddish yellow; second to sixth segments with moderately strong marginals.

Holotype: ♂, No. 4048, Mus. Calif. Acad. Sci., Ent.; *paratypes*: 2 ♂, Anuda Island, Santa Cruz Group, July 17, 18, 1933.

The intra-alar bristle is situated rather close to the dorsocentral line and is poorly developed. The species can scarcely be placed in *Minettia*.

Homoneura whitneyi Curran, new species

Rusty reddish yellow, the abdomen with broad, interrupted shining black fasciae. Length, 2.5 mm.

Female: head shining, the hair black; cheeks narrow; palpi and proboscis reddish. Antennae reddish, the third segment only a little longer than wide; arista black, short pubescent.

Thorax strongly shining; five pairs of acrosticals and three pairs of postsutural dorsocentrals; intra-alar bristle absent; apparently two sternopleurals; pteropleura bare.

Legs reddish yellow; anterior tarsi brown, with the apical three segments distinctly broadened, the apical two or three segments of the posterior four tarsi

brownish. Anterior femora with three posteroventral bristles on the apical half and a row of four posterodorsal bristles; middle femora with two weak anterior bristles apically; posterior femora without ventral bristles, with a weak preapical anterodorsal. No comb of tiny bristles on the anterior femora.

Wings cinereous hyaline; veins luteous, yellow basally. Squamae luteous, with pale fringe. Halteres yellow.

Abdomen shining; first and second segments rusty yellowish, the second with a narrow, broadly interrupted apical black fascia; third to sixth segments each with the apical two-thirds or three-fourths black except very broadly along the middle line, the black spots somewhat tapering toward the lateral margins of the segments, not extending to the edges of the tergites, the spot on the sixth segment reaching the base and about as broad as long.

Holotype: ♀, and ♀ *paratype*: **Malaita Island** (Whitney Expedition).

Homoneura crockeri Curran, new species

Plate 2, figure 10

Rusty yellowish, the frontal orbits and occiput behind the eyes yellowish brown. Length, 4.5 mm.

Male: head dull, the frontal orbits and upper part of the occiput shining, the orbits with brown tinge; front narrowing anteriorly, the occiput with thin whitish pollen below. Cheeks as wide as the third antennal segment. Face with weak swellings below. Proboscis and palpi reddish yellow. Antennae pale orange, the third segment one-half longer than wide; arista black, pubescent.

Thorax wholly shining; four or five pairs of well developed acrosticals, the anterior ones becoming short; three pairs of dorsocentrals, the anterior pair situated close to the suture; no intra-alar; pteropleura with a few black hairs; two sternopleurals.

Legs reddish yellow; anteroventral and anterodorsal bristles on front femur not extending to the base, the comb of tiny black bristles present; middle femur without bristles below, the apical half with a row of anterior bristles; posterior femur with a preapical anterodorsal bristle and three or four weak anteroventral bristles apically.

Wings cinereous hyaline, the veins luteous. Squamae brownish yellow. Halteres yellow.

Abdomen shining, yellowish, the fifth and sixth segments each with an irregularly orbicular brown spot posteriorly on either side, the sixth with a subtriangular median spot on the apical half. Bristles moderately strong. Genitalia yellowish.

Holotype: male, No. 4049, Mus. Calif. Acad. Sci., Ent., **Guadalupe Island**, May 23, 1933.

Homoneura sikaiana Curran, new species

Plate 2, figure 9

Reddish yellow, the fifth abdominal segment with black lateral and median spots; arista pubescent. Length, 3.5 mm.

Male: head dull rusty reddish, with brownish yellow pollen; hair black; cheeks moderately narrow; face with weak swellings below. Proboscis and palpi reddish. Antennae reddish, the third segment oval, reddish brown beyond the arista except on the broad lower border; arista brown except basally.

Mesonotum shining rusty reddish, the pleura and scutellum paler. Acrostical hairs in six rows, the middle row with four or five pairs of bristles, the anterior ones weak; intra-alar entirely absent; pteropleura bare; two sternopleurals.

Legs reddish yellow; anterior femora with comb of tiny bristles and complete rows of posterodorsal and posteroventral bristles; middle femora without strong bristles but with a weak anterior row on the apical third; posterior femora with a very weak preapical anterodorsal bristle and with only three or four anteroventral bristles apically.

Wings cinereous hyaline, the veins luteous, becoming yellow basally. Squamae with brownish fringe. Halteres yellow.

Abdomen rusty reddish yellow, the hair and bristles black. Fifth segment with a small median black spot extending the whole length and with a large, orbicular black spot on each side. Genitalia rusty reddish.

Holotype: male, No. 4050, Mus. Calif. Acad. Sci., Ent., **Sikaiana Island, Stewart Islands**, May, 15, 1933.

DROSOPHILIDÆ

Of the seven species in the collection five are apparently undescribed. The relationships of the new forms are indicated in connection with the descriptions, but it may happen that the species are not closely related to species indicated, since I do not have examples for comparison.

***Leucophenga xanthobasis* Curran, new species**

Differs from *gibbosa* de Meijere in having the wings clouded on the median half, the anterior crossvein not included in the brown area. Length, 2.25 mm.

Female: front brownish red, the sides somewhat darker, the broad anterior border dull dark orange; no interfrontal hairs; anterior reclinate strong, arising a little above the proclinate bristle; postocellars weak. Occiput brown, reddish below. Cheeks narrow, yellow, the hairs arising from a brown stripe. Face reddish brown with yellow parafacials; a single vibrissa. Proboscis dark reddish; palpi large, black. Antennae reddish, the third segment brown, large, pubescent; arista black, with six long rays above and three below.

Thorax rusty reddish above, yellow on the sides and sternum; mesonotum with a large transverse darker rectangle before the scutellum; scutellum with the free border broadly yellow, preceded by a pale brown band and with two pairs of equally strong marginals; acrostical hairs not in rows; prescutellars as strong as the anterior pair of dorsocentrals; three sternopleurals in an almost straight line, only the posterior bristle strong.

Legs yellow. Wings cinereous hyaline, with a large brown cloud in the middle extending back to the fifth vein and enclosing the posterior, but not the anterior crossvein; third costal section a little more than half as long as the second; ultimate section of the fourth vein somewhat more than twice as long as the preceding section, the fourth vein reaching the wing margin very weakly. Halteres yellow.

Abdomen shining black; first segment, basal half or more of the second and third, sixth in the middle, the ovipositor and venter, yellow; second segment with a small brown spot on each anterior corner; ovipositor short and broad. Hair black.

Holotype: female, No. 4051, Mus. Calif. Acad. Sci., Ent., **Kau Kau Plantation, Guadalcanar Island, May 23, 1933.**

Drosophila willowsi Curran, new species

Rusty reddish yellow, the third antennal segment brownish. Length, 1.5 to 2 mm.

Male: front anteriorly about equal to its length, strongly widening posteriorly; broad anterior band paler than the upper portion, the broad orbits pale and with thin, pale yellowish or whitish pollen; middle of the front with three or four fine hairs on either side; median frontal bristle half as strong as the anterior; ocellars long and strong; postocellars moderately long. Occiput black immediately above the neck, with a single row of orbital hairs. Cheeks narrow. Facial keel narrow, broadening below, convex below. Proboscis and palpi yellow. Antennae reddish yellow, the third segment brownish red to brown; arista black, with six long rays above and four below.

Thorax dull, with eight rows of acrostichal hairs and no trace of prescutellars, two pairs of dorsocentrals; scutellum flattened, bare except for the two pairs of marginals. Lower half of the pleura yellow; sternopleura with two bristles and usually a strong hair above the posterior one, below them a row of hairs extending downward and ending in front of the hairs on the pectus.

Legs reddish yellow, the coxae paler; anterior femora with a row of tiny, approximate setulae on the subapical half of the anteroventral surface; basal segment of the front tarsi distinctly longer than the two following segments together.

Wings cinereous hyaline, with luteous tinge, the crossveins weakly clouded; ultimate section of the fourth vein about one-fourth longer than the preceding section.

Abdomen wholly dull rusty reddish yellow, the genitalia yellow; hair black.

Holotype: ♂, No. 4052, Mus. Calif. Acad. Sci., Ent., and *paratype*: ♂, **Matema Island, Santa Cruz Group, July 7, 1933.**

Differs from *calceolata* Duda in having yellow tarsi, color of the abdomen, etc.

Drosophila ananassae Doleschall

Drosophila ananassae Doleschall, Nat. Tijd. Ned. Ind., xvii, p. 128, 1858.

Drosophila caribbea Sturtevant, Ann. Ent. Soc. Amer., ix, p. 335, 1916.

Eight ♂, 27 ♀, Anuda Island, July 15, 1933; ♂, Puka Puka Island, Cook Islands, April 9, 1933; 2 ♀, Matema Islands, Santa Cruz Group, July 8, 1933.

In the males the abdomen is usually wholly reddish, but may have the apices of the segments very narrowly brown, as in the females. The rows of acrostical hairs vary in number from six to eight. There are two sternopleurals, the anterior moderately strong, and sometimes a bristly hair above the posterior one; the posterior surface of the first two segments of the anterior tarsus bears a row of short, approximate hairs or tiny bristles in the male, the femora simple. The specimens before me agree with the type of *caribbea*.

Drosophila mitis Curran, new species

Apparently belongs in *Scaptodrosophila* Duda, but the prescutellars are not regularly present, one frequently being absent. Differs from *scaptomyzoides* Duda in having the abdomen banded with brown or black. Length, 1.25 to 1.5 mm.

Male: front narrower anteriorly than long, widening posteriorly, metallic brownish red, the anterior border broadly dull orange, the orbits broadly pale pollinose; small reclinate frontal situated opposite, or a little behind the proclinate frontal; no hair on the middle of the front. Occiput mostly brownish in ground color, thinly pale pollinose. Face and cheeks yellow, the latter very narrow; carina high but narrow; parafacials and cheeks with thin white pollen; a single pair of vibrissae. Proboscis and palpi reddish yellow. Antennae reddish, the third segment mostly brown; arista with four rays above and two below.

Thorax rusty reddish yellow, the pleura darker on the upper half and usually brownish just above the middle; acrostical hairs in six rows, the prescutellars moderately strong, sometimes only one present; two pairs of dorsocentrals; scutellum bare except for the marginal bristles, the basal pair not half as strong as the apicals; three pairs of sternopleurals; a row of tiny hairs extending down the middle of the sternopleura.

Legs wholly rusty reddish yellow, without unusual hairs or bristles; basal segment of the front tarsi about as long as the remaining segments.

Wings cinereous hyaline; second costal segment twice as long as the third; ultimate section of the fourth vein about two and one-half times as long as the preceding section. Halteres reddish yellow.

Abdomen rusty reddish yellow, the segments each with a very broad brown or black stripe posteriorly, the sixth segment wholly black, the fifth more than half black or brown, the dark bands usually narrowed in the middle but not distinctly interrupted. Hair black.

Female: brown abdominal fasciae usually paler, the sixth segment usually banded with reddish basally; basal segment of front tarsi about as long as the remaining segments combined, but the tarsi shorter than in the male.

Holotype: ♂, No. 4053, *allotype*: ♀, No. 4054, Mus. Calif. Acad. Sci., Ent., and *paratypes*: 4 ♂, 4 ♀ **Santa Catalina Island, Solomon Group**, July 2, 1933.

Drosophila anuda Curran, new species

Belongs in *Paradrosophila* Duda and traces to *latifascia* de Meijere in Duda's key (1924), and agrees in wing venation with his figure 61. Duda's identification cannot be correct because *latifascia* was described as having the sides of the scutellum blackish brown and the black abdominal fasciae on the second and third segments well in front of the posterior borders.

Male: front subtranslucent brownish orange, dark orange anteriorly, the orbital stripes and ocellar triangle with pale pollen; anterior reclinate frontal situated slightly above the proclinate; three or four hairs on either side of the median vitta in an oblique row; postocellars well developed. Middle of the occiput brown in ground color, pale pollinose. Face and cheeks yellow, the latter very narrow; parafacials and cheeks with whitish pollen; one pair of strong vibrissae. Proboscis and palpi reddish yellow. Antennae reddish, the third segment reddish brown; arista black, with four rays above and two below.

Thorax rusty reddish; six rows of acrostical hairs and a pair of weak prescutellars; two pairs of dorsocentrals and marginal scutellars, the basal pair of scutellars about half as long as the apicals, the scutellum otherwise bare. Pleura rather brown on the upper half, reddish yellow below; three sternopleurals and a row of hairs extending down the middle of the sternopleura.

Legs reddish yellow, without unusual hair or setulae; first segment of the front tarsus about as long as the remaining segments combined.

Wings cinereous hyaline; second costal section about twice as long as the third; ultimate section of fourth vein more than twice as long as the preceding section. Halteres reddish yellow.

Abdomen black, rather dull, the apical segment shining; very broad bases of the fourth and fifth segments, base of the second and the whole middle of the first pale reddish yellow, the fifth segment sometimes lacking the yellow fascia or it is obscure and narrow. Hair black. Venter reddish yellow.

Female: front tarsi shorter; abdomen more brown, the third segment also with a broad pale fascia, but variable, all the fasciae sometimes reddish or not well marked; in fully colored specimens almost as in the male.

Holotype: ♂, No. 4055, *allotype*: ♀, No. 4056, Mus. Calif. Acad. Sci., Ent.; *paratypes*: ♂, 5 ♀ **Anuda Island**, July 15, 1933 and ♂, **Nupani Reef Island, Santa Cruz Group**, May 8, 1933.

***Drosophila crockeri* Curran, new species**

Traces to couplet 61 in Duda's key (1924), where it disagrees with all the alternatives, and particularly from *lineata* de Meijere in having reddish yellow scutellum bearing two brown vittae and lacking white vittae on the mesonotum. Length, 2.25 mm.

Female: front distinctly narrower than long, rusty reddish, with a pair of broad, anteriorly converging brown vittae extending from before the ocellar triangle to the anterior margin, the sides yellow anteriorly, the orbital stripes with whitish pollen; ocellar triangle brown; anterior reclinate frontal situated behind the proclinate; a row of four or five tiny hairs on each brown vitta; postocellars moderately strong. Occiput reddish, brown between the vertex and neck. Cheeks very narrow, reddish yellow, the hairs arising from a black stripe. Face dull reddish yellow, thinly whitish pollinose. Proboscis dull orange; palpi brown, moderately large. Antennae reddish, the third segment mostly brown; arista black, with four long rays above and two below.

Thorax yellow, the mesonotum posteriorly and the scutellum reddish yellow; mesonotum with six brown vittae, the lateral ones extending only to the base of the wings, the median pair extending to the end of the scutellum, the sublaterals spreading over the posterior calli; pleura with a brown stripe above narrowly separated from the lateral mesonotal vitta; acrostical hairs in six rows, the median row becoming longer behind but not bristle-like; two pairs of dorsocentrals; scutellum bare except for the two pairs of equally strong bristles; one strong and two weak sternopleurals.

Legs yellow. Wings with brown tinge; second costal section not twice as long as the third, the ultimate section of the fourth vein about one-fourth longer than the preceding section. Halteres reddish yellow.

Abdomen rusty reddish yellow or yellow, the second to fifth segments each with a broad, posterior brown fascia and very broad median vitta, the median vitta widened anteriorly on each segment; sixth segment wholly pale; venter wholly reddish yellow; ovipositor of medium length.

Holotype: female, No. 4057, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 8, 1933.

Drosophila metallescens de Meijere

Drosophila metallescens de Meijere, Tijds. v. Ent., lvii, p. 265, 1914.

Liodyrosophila metallescens Duda, Arch. f. Naturg., A, Heft 2, p. 160, 1922.

Two ♂, Matema Island, Santa Cruz Islands, July 8, 10, 1933; ♀, N.W. end of Bellona Island, June 21, 1933; ♀, Santa Catalina Island, Solomon Group, July 2, 1933.

Despite the poorly developed anal vein I do not believe that *Liodyrosophila* can be maintained, since this condition is approached by species retained in *Drosophila*.

Drosophila, species

In addition to the species listed above there are three others, each represented by a single specimen. In view of the fact that both sexes are necessary for the identification of species in the group to which they belong, it is not possible to determine them.

AGROMYZIDAE

There are two specimens in the collection representing different, and apparently undescribed, species of *Agromyza*, but, as they are not in good condition, descriptions are not presented. One is from Rennell Island, the other from Matema Island, Santa Cruz Group.

PHYLLOMYZIDAE

There are two species in the collection, one of them undescribed.

Desmometopa Loew

The species recorded from Java and New Guinea are separable as follows.

- 1. Palpi black..... 2
- Palpi yellow, sometimes with brown band..... 3
- 2. Legs, antennae and halteres black..... *wulpi* Hendel
- Tarsi yellow..... *tarsalis* Loew
- 3. Palpi with a brown band before the middle..... *palpalis* de Meijere
- Palpi wholly yellow..... *anuda*, n. sp.

Desmometopa anuda Curran, new species

Black, the palpi, tarsi, halteres and under side of the third antennal segment yellowish. Length, 1.25 mm.

Female: head black, the front slightly shining, the orbits and ocellar triangle shining or with slight grayish tinge, the intrafrontal stripes not differentiated; anterior border rather narrowly reddish. Face cinereous pollinose. Palpi elongate, reddish yellow. Antennae black, the third segment broadly reddish below on the basal half.

Thorax black, the mesonotum and scutellum thinly cinereous pollinose, the pleura shining except above.

Legs black, the tarsi reddish yellow with the apical segment brown; anterior coxae reddish on the inner half or more, the knees narrowly yellow.

Wings cinereous hyaline, rather broad. Halteres yellow.

Abdomen shining black, slightly dulled by brown pollen.

Holotype: female, No. 4058, Mus. Calif. Acad. Sci., Ent.; and two female *paratypes*: **Anuda Island**, July 15, 1933.

Phyllomyza flavipalpis de Meijere

Phyllomyza flavipalpis de Meijere, Tijds. v. Ent., lvii, p. 252, 1914.

Two specimens, Santa Catalina Island, Solomon Islands, July 2, 1933.

CHLOROPIDAE

Of the seven species in the collection six are described as new, and the identification of the other is somewhat doubtful.

Steleocerus obscurellus Becker

Steleocerus obscurella Becker, Ann. Mus. Nat. Hung., ix, p. 45, 1911.

Female: Santa Catalina Island, Solomon Islands, July 2, 1933. Originally described from New Guinea and Java.

In the specimen there is a large reddish abdominal triangle extending forward from the base to beyond the middle. It may not represent the true *obscurellus*.

Chlorops lithofrons Curran, new species

Upper surface black or brown, the under surface yellowish; third antennal segment practically all black. Length, 2.5 mm.

Female: vertical triangle shining ferruginous, reaching as a narrow point practically to the anterior margin of the front, its sides raised, in the middle, anteriorly, with a longitudinal ridge, and on either side with two rounded V-shaped ridges extending forward from the vertex, the smaller of the two with its base near the middle of the triangle, the outer one wholly parallel with it; front dull reddish out-

side the triangle and bearing a few short black hairs, a row of stronger hairs along the outer edge of the triangle. Occiput reddish yellow, brown below the vertex; cheeks half as wide as the third antennal segment, bare. Face and cheeks yellowish. Proboscis and palpi reddish yellow, the apices of the palpi broadly brown. Antennae brownish red, the third segment black, except at the immediate base, rather small, slightly longer than wide, its upper apex obtusely rounded; arista white, reddish at the base.

Mesonotum with three broad and two narrow black, brownish gray pollinose vittae, covering most of the surface, the pale vittae yellow in front, where they are united with the yellow humeri, becoming reddish posteriorly, where they unite and spread over the whole of the posterior border; the lateral yellow vittae extend from the humeri to the base of the wings, the lateral margins broadly reddish behind the suture; scutellum dull reddish in ground color, bearing two or three pairs of marginal bristles, the upper surface with sparse short black hairs, except in the middle. Mesonotal hair black and extremely short. Pleura yellow; sternopleura with a large triangular black spot, a smaller spot above the posterior coxae, one beneath the anterior spiracle, one on the lower part of the mesopleura and an obscure one on the lower part of the pteropleura.

Legs reddish yellow, the tarsi with the apical one or two segments brown; posterior femora with a very broad, pale brownish band near the middle. Hair very short, black.

Wings cinereous hyaline; posterior crossvein oblique, situated about twice its length from the wing margin. Halteres yellow.

Abdomen black above, the tip yellow; base brownish or brownish red, at least in the middle; hair black. Venter and genitalia reddish yellow.

Holotype: ♀, No. 4059, Mus. Calif. Acad. Sci., Ent.; *paratypes*: 2 ♀, **Matema Islands, Santa Cruz Group**, July 8, 1933.

Apparently related to *ochracea* Becker but darker and without yellow border to the frontal triangle which is narrower.

Oscinella vixen Curran, new species

Black, the pleura yellow above; mesonotum densely cinereous white pollinose. Length, 1.75 mm.

Female: front reddish brown, broadly yellow in front, the ocellar triangle cinereous pollinose, the pale pollen extending somewhat beyond the triangle; vertical triangle not differentiated; hair and bristles yellow. Occiput black. Cheeks brown, cinereous pollinose, about half as wide as the third antennal segment. Parafacials and parafrontals whitish pollinose. Antennae black, the basal segments more brownish; third segment a little longer than wide; arista slender, thickened only at the base.

Thorax black or brown, the mesonotum and upper half of the pleura densely cinereous white pollinose, the hair and bristles yellow; mesonotum with a pair of obscure yellow vittae on the dorsocentral lines, the sides, the prothorax and the broad upper border of the mesopleura expanding behind, yellow in ground color, the humeri and scutellum wholly yellow; scutellum flattened, with two pairs of marginals and about ten hairs on the disc.

Legs brown, the coxae reddish brown; knees yellow; tips of the tibiae and the posterior four tarsi brownish yellow, the tarsi paler below. Hair wholly pale.

Wings cinereous hyaline; veins brown. Halteres pale orange.

Abdomen brown, thinly pale pollinose, the hair yellow. Venter reddish, the sides brown and thickly pollinose.

Holotype: female, No. 4060, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 7, 1933.

Differs from *taeniata* Becker in the color of the legs, mesonotal pollen, etc.

Oscinella solomensis Curran, new species

Shining black; abdomen broadly yellow basally; tibiae and tarsi white. Length, 1.5 mm.

Male: head black, the vertical triangle polished and reaching to the anterior sixth of the front; four pairs of orbitals and a row of hairs adjacent to the sides of the triangle, the anterior pair strong and decussate. Cheeks and parafacials with dark brown pollen, the former linear. Face very narrow. Proboscis and palpi black. Antennae reddish, the third segment brown on more than the apical half, subtriangular, twice as wide as long, the median and upper and lower angles rounded, the brown arista arising on the outer side near the upper end and distinctly pubescent.

Thorax shining black, white haired, the bristles black. Scutellum with black hair and two pairs of black bristles, the apical pair arising from tiny tubercles.

Anterior four femora black with the apices broadly reddish yellow, the posterior pair rusty reddish yellow with an incomplete, broad brown band beyond the middle. Tibiae and tarsi whitish. Hair pale yellow.

Wings pale brownish, becoming hyaline at the base, the costal border more intensely brown in front. Posterior crossvein one and one-half times its length from the wing margin. Halteres yellow.

Abdomen brown, the base very broadly yellow; hair black.

Holotype: male, No. 4061, Mus. Calif. Acad. Sci., Ent., **Santa Catalina Island, Solomon Group**, July 2, 1933.

Differs from *noctilux* Walker in the wholly black head, etc. The species might almost be placed in *Gaurax*, but I can see only a single notopleural bristle and the pubescence on the arista is shorter than in typical species of *Gaurax*.

Hippelates tenuifacies Curran, new species

Traces to couplet 3 in Becker's key (1911), but differs in having the mesonotum shining black with reddish sides; differs from *nigricornis* Thomson in having a narrow face and much shorter spur on the posterior tibia. Reddish, the dorsum of the thorax and abdomen black. Length, 1.5 to 1.75 mm.

Male: head reddish, or yellow, shining, the cheeks and parafacials silvery white pollinose; occiput black below the vertex, the face brownish yellow or yellow, the middle part not twice as wide as either parafacial; vertical triangle extending very broadly to the anterior margin of the front, somewhat darker than the parafrontals; hair sparse, black, each side with four rather strong, reclinate bristles. Occiput thinly pale pollinose; cheeks very narrow. Proboscis and palpi reddish or yellowish, the "knee" of the proboscis sometimes brown. Antennae black above,

yellow below, the third segment yellow on more than the lower half, elliptical, more or less pointed dorsally; arista sub-apical, long pubescent.

Mesonotum shining black, with black hair and bristles, the sides broadly reddish, the pale color extending inwards before the scutellum and at the sides of the suture, the humeri yellow. Scutellum yellow with the margin ferruginous or at least darkened, except at the apex, bearing two pairs of marginals, the disc with appressed black hair, rather flattened. Pleura shining reddish yellow.

Legs reddish yellow, the anterior tibiae and tarsi and the apical third of the front femora darkened, brownish yellow; apical tarsal segment pale brown; hair black. Spur of the posterior tibia apical, little longer than the tibial width.

Wings cinereous hyaline; last section of fifth vein almost twice as long as the posterior crossvein. Halteres yellow.

Abdomen shining black above, with the base very broadly reddish yellow; venter yellow, the genitalia rather large and shining black. Hair black, pale on the venter.

Holotype: ♂, No. 4062, Mus. Calif. Acad. Sci., Ent.; *paratype*: ♂: **Nupani Reef Island, Santa Cruz Group, May 8, 1933** and *paratype*: ♂, **Matema Island, Santa Cruz Group, July 10, 1933.**

The two specimens from Nupani Island differ in that the face of the paratype is yellow, while that of the type is dark. The second paratype agrees in all respects with the type.

Hippelates matema Curran, new species

Rusty reddish yellow, the mesonotum with three brown vittae; third antennal segment angularly produced above. Length, about 2.5 mm.

Female: head pale ferruginous, the front paler; vertical triangle widely separated from the eyes, produced as a narrow point to the anterior margin of the front; frontal hair inconspicuous; three rather weak approximated orbitals on either side. Cheeks very narrow, white pollinose; face moderately narrow, the parafacials with whitish pollen; hair on lower edge of cheeks yellow, the vibrissae black. Proboscis and palpi brown. Antennae reddish yellow, the upper border black, the third segment much wider than long, produced angularly upward; arista black, pubescent, arising on the outer side of the third antennal segment well below the angle.

Thorax rusty reddish yellow, the mesonotum darker, with a median and lateral brownish vittae, the hair yellowish, black above the bases of the wings, the bristles black; scutellum flattened, bearing a pair of strong and a pair of weak marginals, the disc with two or three small hairs on either side, bordered with brown except at the apex.

Legs wholly reddish yellow, the hair yellow, but at least partly black or brown on the upper surfaces of the femora and tibiae; tarsi not darkened apically. Spur of the posterior tibia curved, decidedly longer than the tibial width.

Wings cinereous hyaline; posterior crossvein oblique, situated one and one-half times its length from the wing margin. Halteres yellow.

Abdomen reddish yellow, darkened above except on the broad base; hair black.

Holotype: female, No. 4063, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group, July 7, 1933.**

This species differs from *bilineatus* de Meijere in the shape of the antennae, narrower face and slightly larger size.

Parahippelates variabilis Curran, new species

Related to *aequalis* Becker, but with reddish halteres and tarsi, and usually reddish tibiae, but the latter may have broad, brown median bands. Length, 2.25 to 3 mm.

Male: head reddish, the sides of the front on the upper half rich reddish brown, the occiput brown in ground color on the upper two-thirds. Front about half as wide as the head, moderately narrowing anteriorly; orbitals not or scarcely stronger than the scattered hair on the anterior half of the front; vertical triangle extending to the anterior fourth of the front, its apex broadly yellow, otherwise cinereous; occiput with cinereous, the cheeks and face with white pollen; cheeks as wide as the third antennal segment, with two irregular rows of short black hairs. Proboscis brown; palpi dull reddish yellow. Antennae reddish yellow, the upper edge brown; the third segment suborbicular; arista black, with long rays. Cheeks with a yellow bristle at the posterior angle.

Thorax blackish or brown in ground color, thickly cinereous or cinereous yellow pollinose, the mesopleura largely brown; mesonotum with three brownish vittae, or with the disc mostly brownish, the color of the pollen quite variable, but the sides always pale. Four pairs of dorsocentrals, the anterior three rather short. In pale specimens the hair and bristles arise from tiny dark spots. Scutellum with two pairs of marginals and with or without a pair of discals, cinereous pollinose. Sternopleura with yellow hair. Border of the scutellum usually reddish in ground color.

Legs reddish; femora brown with the broad apices reddish, cinereous pollinose, clothed with black hair above and yellow below; posterior tibiae sometimes very broadly brown in the middle, the anterior four sometimes more or less brown beyond the middle, usually wholly reddish; tarsi reddish with the apical segment brown; hair black. Coxae brownish red, with yellow hairs and bristles. Spur on hind tibia slightly longer than the tibial width.

Wings cinereous hyaline, the veins pale brown. Halteres reddish yellow.

Abdomen black or brown, brown pollinose, the apices of the segments broadly cinereous yellow, their tips perhaps reddish in ground color; genitalia dark reddish; hair black. The disc of the abdomen may be more or less brownish red and the under surface is more or less reddish with rather thick cinereous pollen.

Female: the scutellum is reddish or brownish yellow in ground color, the disc more or less brown and the pleura are practically all cinereous, there being only a trace of brown on the mesopleura.

Holotype: ♂, No. 4064; *allotype*: ♀, No. 4065, Mus. Calif. Acad. Sci., Ent.; and *paratypes*: 2 ♂, 8 ♀, Kau Kau Plantation, Guadalcanar Island, May 20, 1933; 5 ♂, 2 ♀, Santa Ana Island, July 3, 1933, and ♂, Matema Islands, July 9, 1933.

EPHYDRIDAE

(By EZRA T. CRESSON, JR.)

A small collection of this family totalling eleven specimens, representing five species, was submitted to me for study. One of these I consider, with some uncertainty, undescribed; the other four have been previously recorded from several Indo-Australian Islands, particularly Samoa, New Guinea, Guam, Formosa and Java. It is very probable that many of the species occurring on those islands and northern Australia will be found on the Solomons.

Stratiothyrea matema Cresson, new species

This is possibly *Stratiothyrea femorata* Meijere¹ the type-species of that genus, originally described from the island Waigeu. However there being some discrepancies in Meijere's description I am considering the present species distinct. The figure of the face of *femorata* does not show the evenly semicircular-like profile of the facial tumourosity of the present species, but shows the entire lower part of the face angularly convex, with the tormae prominent but not projecting forwards. The scutellum here is not at all suberect, and is provided with four marginal bristle-bearing tubercles. The description of the fore femora is in agreement but their tibiae in the present species are not particularly enlarged, nor are the wings relatively narrow.

I have little doubt as to my generic determination, but here I may be wrong and for this reason I am describing the species in more detail than would otherwise be necessary.

Black; third antennal segment especially the lower portion, mid and hind tarsi except apical segment, yellow. Halter-knobs and the two proximal segments of fore tarsi white. Wings clear with pale costa and veins, becoming darker basally.

Entirely shining to polished without any trace of brown dusting, except sparingly on the legs and spots in protected places.

Structurally similar to the species of *Gymnopa* and *Athyroglossa*. Head distinctly broader than high. Eyes large. Frons slightly broader than long, oblique and convex in profile; outer verticals absent; a few microscopic, proclinate orbital setulae; ocellars strong, parallel, widely separated, aligned with anterior ocellus; mesofrons rather ample, rounded anteriorly and attaining anterior margin; frontalia scarcely differentiated; parafrontalia linear. Face about one-half as broad as frons, much longer than broad; in profile convex above with lower two-thirds very prominent, almost evenly semicircularly convex; parafacialia very narrow, scarcely dilating except at cheeks; facialia linear, marked as a series of bristle-bearing pimples, the uppermost of which is above middle of facial profile, bearing the one pair of almost cruciating facials, those below bearing short setulae; foveae well excavated but with little evidence of median carina; medifacies very prominent, almost sub-hemispherically convex, almost attaining the slightly reflexed epistoma. Tormae as in *Athyroglossa*, narrow, projecting directly forwards. Cheeks almost as broad as length of third antennal segment; postbucca of same width, with posterior margin sharp and reflexed. Antennae situated above center-line of eyes; second segment almost bare except the short dorsal hair and a short proclinate dorsal seta; third segment almost discoidal, with long arista bearing six long hairs above.

Mesonotum densely setulose which are not seriated; a strong prescutellar near lateral roots of scutellum, a postalar and one notopleural, present. Scutellum broader than long, rectangular in outline, flat but slightly convex along apical margin, sparingly setulose, with two widely separated apical, and a slightly smaller subapical, elongate, bristle-bearing tubercles, the apical pair longer than their diameter and removed from each other about three to four times their length. Mesopleura sparingly setulose with some long bristles at posterior margin.

Abdomen broadly ovate, smooth, very sparingly setulose; second to third segments subequal in length, fourth much longer, fifth very short.

Legs with few setulae; fore femora greatly enlarged in dorso-ventral diameter, with a triangularly produced flexor tooth at proximal third, making the width of the femora there about equal to its length; the posterior flexor ridge distad of this

¹ Bijdr. Dierk., XIX, p. 66, pl. 20, fig. 26 (1913).

tooth microscopically serratulate; an anterior flexor series of long hairs. Fore tibiae distinctly curved, with series of short flexor hairs.

Wings with normal venation; costa with subbasal bristle and several long setae on first section beyond humeral crossvein; second vein long, almost straight to tip, making second section of costa three times as long as third; third and fourth veins parallel, with third section of fourth twice as long as second; posterior crossvein about one-third as long as second section of fourth, more than its length from margin of wing; alula linear.

Length, 2 mm.

Holotype: ♂, No. 4066, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 7, 1933; *paratypes*: 1 ♂, topotypical with same data. 1 ♂, **Star Harbor, San Cristoval Island, Solomon Group**, July 3, 1933.

Allotrichoma alium Cresson

Allotrichoma alium Cresson, Trans. Am. Ent. Soc., LV, p. 173, 1929 (New Guinea).

One female, Matema Island, Santa Cruz Islands, July 7, 1933.

This species was described, and was previously known to me only from New Guinea.

Trypetomima Meijere

Trypetomima Meijere, Tijd. v. Ent., LIX, p. 265, 1916. (Java.)

Trypetomina Cresson, Trans. Am. Ent. Soc., LV, p. 171, 1929. (Error.)

Eupsilopa Malloch, Ins. Samoa, VI, p. 315, 1934. (Genotype, *E. fascipennis* n. sp.; Samoa.)

This genus was erected for *T. pulchripennis* n.sp. from Java, and as here understood is separated from its allied genus *Actocetor* Becker by the narrower, *Psilopa*-like face with a subcarinate upper portion, the bristles situated well below the middle of the facial profile, and the very abrupt bend of the second vein before entering the costa, the bend generally with an appendage into the submarginal cell. The description of the genotype does not mention, nor does the figure of the wing show, this character of the second vein. This may have been an oversight on the part of the author, but if not, there are probably other characters not mentioned which will give us an entirely different generic concept. If such is the case Malloch's name is available for the genus containing the species here considered.

Clear spots of the wings arranged in three transverse series; only one spot in submarginal cell besides that at its apex; costa not strongly setose; arista with six hairs; Black species with sparse grayish vestiture (Guam).....*solitaria* Cresson

Clear spots conjoined to form three complete bands.
(Guam).....*completa* Cresson
(Samoa).....*fascipennis* Malloch

Clear spots not arranged in transverse series or bands; two clear spots beyond first vein in submarginal cell not including that at its apex (if latter is present); costa strongly spinose; arista with eight hairs. Grayish species with black, gray banded abdomen (Formosa). *formosanus* Becker²

² This may not be congeneric with the other species. The costal spines are very strong.

Trypetomima solitaria Cresson

Trypetomina solitaria Cresson, Trans. Am. Ent. Soc., LV, p. 172, 1929. (Type: ♀; Guam.)

This species was also recorded from New Guinea (Cresson, 1929), and before me are two males and a female from Matema Island, Santa Cruz Islands, July 9, 1933.

Discomyza maculipennis (Wiedemann)

Homalura maculipennis Wiedemann, Anal. Ent., p. 57, 1824.

One male; Santa Catalina Island, Solomon Group, July 2, 1933.

This is a well distributed species in the Indo-Australian region, but not known to me as occurring nearer the Solomon Islands than Guam.

Leptopsilopa pollinosa (Kertész)

Ephygrobia pollinosa Kertész, Term. Fuzet., XXIV, p. 81, 1901. (Singapore.)

Leptopsilopa pollinosa Cresson, Trans. Am. Ent. Soc., LI, p. 251, 1925. (Generic change; distributional records.)

Psilopa irregularis Malloch, Ins. Samoa, VI, p. 314, 1934. (Samoa.) (New Syn.)

This seems to be a widely distributed Indo-Australian species, and I have (1925) reported it from India, Formosa, New Guinea, Australia and the Samoa Islands. There is considerable variation in the metallic coloration. In some individuals there is none; in others we have brilliant greens and blues. I do not have any doubt as to the synonymy of *Psilopa irregularis* Malloch.

A small series is before me containing a male and a female from Santa Catalina Island, Solomon Group, July 2, 1933. One male from Anuda Island, Solomon Group, July 15, 1933.

BORBORIDAE

Two widely distributed species were taken by the Expedition.

Leptocera curvinervis (Stenhammar)

Limosina curvinervis Stenhammar, Coprom. Scand., p. 406, 1855; Zetterstedt, Dipt. Scand., xiv, p. 6412, 1860.

Limosina salatigae de Meijere, Tijd. v. Ent., lvii, p. 269 (f).

Four specimens from Anuda Island, July 15, 1933.

Duda has indicated the synonymy of *salatigae* and shown that the species is very widely distributed.

Leptocera angulata (Thomson)

Borborus angulata Thomson, *Eugenies Resa*, v, p. 602, 1868.

One specimen from Matema Island, Santa Cruz Group, July 2, 1933.

CLUSIIDAE

The single specimen represents an undescribed species.

Czernyola pleuralis Curran, new species

Shining black and yellow, the bristles yellowish. Length, 2.75 mm.

Male: front shining black, the orbits reddish; a large V-shaped orange spot anteriorly; three pairs of frontals, the upper pair weak; ocellars and postocellars weak. Cheeks and face white, the hairs and bristles pale yellow. Proboscis and palpi reddish yellow. Antennae yellow, the upper border more orange, the third segment brown at the base of the brown, pubescent arista.

Thorax shining black, the lower half of the pleura and the pectus yellow; hair and bristles yellowish; scutellum with a pair of strong yellow marginals and two pairs of weak black bristles on the sides.

Legs reddish yellow, the posterior femora with the apical fifth or less reddish brown or reddish; hair yellow.

Wings grayish, the apical two-fifths brown, the color fading to gray posteriorly. Halteres yellow.

Abdomen shining black or brown, the sternites basally, and the genital appendages, yellow.

Holotype: male, No. 4067, Mus. Calif. Acad. Sci., Ent., Santa Catalina Island, Solomon Group, July 2, 1933.

Differs from *biseta* Hendel in the color of the pleura, face, etc.

PSILIDAE

The single specimen belonging to this family represents a new genus.

Lasiopsila Curran, new genus

Head short and high, twice as high as long; front anteriorly almost as wide as one eye, slightly narrowing above; two pairs of frontals, the ocellars very weak; postocellars widely separated and convergent; cheeks wider than the third antennal segment; palpi broad; antennae reaching to the lowest fifth of the face, the third segment about one-third as wide as long; arista sparsely plumose; eyes thickly haired, except on the orbits. Mesonotum rather flat, with bristles posteriorly and laterally; one pair of dorsocentrals, one humeral, two notopleural and two bristles on the posterior calli; no pleural bristles. Femora rather robust, the anterior pair

with weak posteroventral bristles and rather coarse hair behind. Wings as in figure 2 of Plate 2. Abdomen twice as long as wide, slightly tapering, sub-cylindrical, the male genitalia large, sub-spherical; no distinct bristles, the hair conspicuous. Genotype. *L. fasciata* Curran, new species.

This genus may be readily distinguished from others in the family by the haired eyes and slightly produced oral margin. The single known species bears a strong resemblance to certain Trupaneids and Otitids but is at once distinguished by the wing venation.

Lasiopsila fasciata Curran, new species

Plate 1, figure 11, Plate 2, figure 2

Black, the head and legs partly pale orange and yellow. Length, 4 mm.

Male: anterior two-fifths of the front pale orange, the orbits very narrowly white pollinose; a line extending across the vertex and the narrow posterior orbits yellow, white pollinose; cheeks brown below; face yellowish, with a brown spot on either side below the middle and slightly darkened on the lower third. Proboscis and antennae pale orange, the palpi white. Hair white, the bristles yellow.

Thorax shining black, with moderately abundant golden yellow hair and bristles, the pleural hair paler than that on the mesonotum. Scutellum with two pairs of bristles, the basal pair weak, the upper surface with short appressed hair. The mesonotal hair is subappressed, that on the pleura erect.

Coxae blackish; anterior four femora with about the basal half brown, the apical half reddish yellow, the pale color extending well toward the base on the under surface of the anterior pair, and less so on the upper surface of the middle pair; posterior femora brown with the apex broadly reddish above. Tibiae and tarsi yellow, the tarsi pale basally. Hair and bristles yellow.

Wings brown and cinereous hyaline as in figure 2 of Plate 2.

Abdomen shining black, with rather short, appressed black hair and longer, suberect black hair laterally; genitalia with erect yellow hair.

Holotype: male, No. 4068, Mus. Calif. Acad. Sci., Ent., **Matema Islands**, May 28, 1933.

MUSCIDAE

One of the species belonging to this family is undescribed.

Atherigona pallidipalpis Malloch

Atherigona pallidipalpis Malloch, Ann. Mag. Nat. Hist., xii, p. 183, 1923.

Eight males and seven females, Anuda Island, June 17, July 15, 18, 1933; ♀, Kungava Bay, Rennell Island, June 16, 1933.

The third antennal segment is wholly brown and the palpi of the female are blackish. Some of the males have the palpi brown basally.

Atherigona matema Curran, new species

Plate 2, figure 3

Related to *nudiseta* Malloch but with the anterior tarsi wholly blackish, and differently shaped trifoliate process on the male genitalia. Reddish yellow, the disc of the mesonotum brown or black in ground color and thickly ochraceous pollinose; front tibiae mostly black or brown, their tarsi wholly so; abdomen with two pairs of brown spots. Length 3.5 to 4 mm.

Male: head reddish yellow, the occiput, except below, and the vertex black, cinereous white pollinose, the pollen also covering the frontal orbits; face and cheeks with ochraceous pollen; bristles black. Proboscis brown; palpi orange, white haired except for a group of short bristles near the base on the outer side. Antennae broad, reaching almost to the vibrissae, orange, the third segment mostly brown; arista reddish brown, the penultimate segment more than twice as long as wide.

Thorax with ochraceous pollen that may appear lighter over the black disc of the mesonotum and broad base of the scutellum, the black color extending to the anterior and posterior margins; two pairs of equally strong scutellars, the apical pair decussate; three sternopleurals, the lower decidedly weaker than the others.

Legs reddish yellow, the front tarsi brown, their tibiae brown on the apical half to two-thirds, the apical tarsal segment yellowish; anterior femora simple and without unusual bristling.

Wings cinereous hyaline; third and fourth veins distinctly converging apically. Squamae and halteres pale yellowish.

Abdomen pale orange, slightly shining, the second and third segments each with a pair of small roundish brown spots; second tergite produced downward, the lower edges ending subrectangularly, without unusual bristling; fourth segment very small. Knob-like genital process with rounded apex from lateral and dorsal view, posteriorly emarginate only above; trifoliate process of the posterior forceps as shown in figure 3 of Plate 2, the stem yellow.

Female: agrees well with the male, but the anterior femora are black or brown on the apical half to three-fourths, their tibiae wholly blackish, the brown abdominal spots are situated on the third and fourth segments and the genital lamellae are brown; the apical segment of the front tarsi paler than the others, usually brownish yellow.

Holotype: male, No. 4069; and *allotype*: female, No. 4070, Mus. Calif. Acad. Sci., Ent., **Matema Island, Santa Cruz Group**, July 7, 1933. *Paratypes*: 2 ♂, 4 ♀, **Matema Island**, July 2, 7, 1933; ♂, ♀, **Matema Islands**, July 8, 1933; 2 ♂, 3 ♀, **Guadalcánar Island**, May 23, 1933.

Pygophora torrida (Wiedemann)

Cænosa torrida Wiedemann, Aussereur. Zweifl., ii, p. 437, 1830.

Female, Tai Lagoon, Malaita Island, May 30, 1933.

Limosia tumidiventris (Stein)

Cænosa tumidiventris Stein, Tijds., v. Ent., xlvii, p. 112, 1904.

Male, Matema Islands, July 9, 1933.

Limosia sp.

Two females from Matema Island, July 7, 1933, do not agree with any published descriptions.

Limnophora plumiseta Stein

Limnophora plumiseta Stein, Mitt. Zool. Mus. Berlin, ii, p. 109, 1903.

One ♂, 5 ♀, Anuda Island, July 15, 18, 1933; 18 ♀, Kungava Bay, Rennell Island, June 14, 16, 1933; ♀, Tai Lagoon, Malaita Island, May 30, 1933; ♀, Guadalcanar Island, May 20, 1933; ♀, Star Harbor, San Cristoval Island, July 1, 1933.

Helina propinqua (Stein)

Spilogaster propinqua Stein, Ann. Mus. Civ. Genova, xx, p. 386, 1900.

Twelve males and eighteen females, Anuda Island, July 15, 18, 1933.

Dichaetomyia rufa Stein

Spilogaster rufa Stein, Termés. Fuzet., xxiii, p. 132, 1900.

Two males and 30 females, Anuda Island, June 17, July 15, 18, 1933; ♀, Nupani Reef Island, May 8, 1933; ♀, Matema Islands, July 9, 1933.

One male has the third and fourth abdominal segments and the broad apex of the second in the middle, and the sternites black but I can find no structural differences. The female from Matema Island has the third and fourth abdominal segments black.

Dichaetomyia atratula Malloch

Dichaetomyia atratula Malloch, Phil. Journ. Sci., xxvi, p. 325, 1925.

Female, Santa Catalina Island, July 2, 1933; ♀, Guadalcanar Island, May 22, 1933.

Dichaetomyia quadrata Wiedemann

Female, Guadalcanar Island, May 21, 1933.

Orthellia timorensis Desvoidy

Male, Guadalcanar Island, May 23, 1933; 4 ♂, 8 ♀, Santa Catalina Island, July 2, 1933; 10 ♂, 12 ♀, Kungava Bay, Rennell Island, June 14, 1933.

Byomya vetustissima Walker

Musca vetustissima Walker, List. Dipt. Brit. Mus., iv, p. 902, 1849.

Twenty-three ♂, 28 ♀, Anuda Island, July 7, 15, 16, 18, 1933; 9 ♂, 21 ♀, Kungava Bay, Rennell Island, June 14, 16, 1933; ♂, N. W. end of Bellona Island, June 19, 1933.

Byomya xanthomelas (Wiedemann)

Musca xanthomelas Wiedemann, Anal. Ent., p. 49, 1824.

Male and eight females, Anuda Island, June 15, 1933.

Resembles *nebulo* Fabricius, but has the propleura bare.

Musca nebulo Fabricius

Musca nebulo Fabricius, Ent. Syst., iv, p. 321, 1794.

Two males, Anuda Island, July 15, 18, 1933.

The propleura are haired in the middle and there are four pairs postsutural dorsocentral bristles.

METOPIIDAE

The genera in the collection may be separated by the following key.

Key to Genera

1. Arista pectinate, with rays on upper surface only.....*Stomorphina* Rondani
- Arista plumose..... 2
2. Lower lobe of squamae haired above..... 7
- Lower lobe of squamae bare above..... 3
3. Ridge at inner end of squamae with long hairs.....*Lucillia* Desvoidy
- Ridge bare..... 4
4. Propleura bare; two or more sternopleurals..... 5
- Propleura haired in the middle; two sternopleurals..... 6
5. Abdomen tessellate.....*Sarcophaga* Meigen
- Abdomen densely pollinose, not tessellate.....*Chrysosarcophaga* Townsend
6. Abdomen tessellate.....*Notochaeta* Aldrich
- Abdomen densely pollinose, not tessellate.....*Phalacrodiscus* Enderlein
7. Stem vein haired posteriorly.....*Chrysomya* Desvoidy
- Stem vein bare.....*Calliphora* Desvoidy

Stomorhina quadrinotata (Bigot)

Idia quadrinotata Bigot, Ann. Soc. Ent. France, p. 238, 1874.

Rhinia quadrinotata Malloch, Ann. Mag. Nat. Hist., xviii, p. 504, 1926.

There is a good deal of confusion regarding the identity of this species, *discolor* Fabricius, and some related forms. The typical *discolor* has the basal third or more of the posterior femora reddish and the tibiae only darkened at the apex while *quadrinotata* has the femora practically all black and the apical third of the posterior tibiae black or brown. Malloch expressed the belief that the two names applied to the same species. The question is an open one and can be decided only by an examination of the type of *discolor*, if it still exists. The chaetotaxy of the posterior femora furnishes an excellent means of distinction between some of the species, and the females of some can be separated by the color of the first tergite. I think there can be no doubt that the specimens recorded below are referable to *quadrinotata*.

Six ♀, Kungava Bay, Rennell Island, June 14, 16, 1933.

I might point out here that the species recorded by Malloch as *simplex* Walker can not be that species since Walker states that the palpi are "pale testaceous."

Chrysomya megacephala Fabricius

Twenty-five ♂, 43 ♀, Kungava Bay, Rennell Island, June 14, 1933.

A common and widely distributed species.

Lucilia, species

One specimen from Malaita Island is in too poor condition to be determined.

Calliphora melinda Curran

Calliphora melinda Curran, Amer. Mus. Novit. No. 375, p. 8, 1929.

Male and two females, Santa Ana Island, July 3, 1933.

Helicobia australis Johnson and Tiegs

Helicobia australis Johnson and Tiegs, Proc. Roy. Soc. Queensland, xxxiii, p. 50, 1921.

Female, Malaita Island, May 30, 1933.

Sarcophaga Meigen

Of the two species in the collections one is evidently undescribed, or the genitalia have not been figured. The species cannot be recognized without figures of the male genitalia.

Sarcophaga orchidea Boettcher

Sarcophaga orchidea Boettcher, Ann. Mus. Nat. Hung., xi, p. 375, 1913 (f).

Sarcophaga gamma Johnson and Tiegs, Proc. Roy. Soc. Queensl., xxxiii, p. 6 (f).

Sarcophaga brunneopalpus Johnson and Tiegs, Proc. Roy. Soc. Queensl., xxxiv, p. 184 (f).

Sarcophaga gamma Hardy, Proc. Linn. Soc. N. S. W., xlviii, p. 125 (f).

Male: Florida Island, September 11, 1927 (Whitney Expedition); ♀, Guadalcanar Island, May 23, 1933.

The male genitalia do not quite agree with the figures published by Hardy and Boettcher, but there can be little doubt about the specimen belonging to *gamma*, which seems to be a synonym of *orchidea*. Senior White's figure also differs from the other two mentioned, but all the figures agree in essential details. The palpi are reddish or brownish red, thus distinguishing the species from the others recorded from the islands.

Sarcophaga zethus Curran, new species

Plate 1, figure 9

Related to *orchidea* Boettcher, but much larger, the arms of the posterior forceps of the male genitalia without the angular lobe before the apex on the inner side. Length, 12 to 16 mm.

Male: head golden yellow pollinose, the frontal vitta black; hair black, reddish yellow on the occiput and lower half of the cheeks. Front about half as wide as one eye; twelve to fourteen pairs of frontals, the upper pair reclinate; ocellars weak; a pair of bristles behind the verticals; a row and partial double row of black hairs behind the occipital cilia. Cheeks five-twelfths as wide as the eye-height, rather grayish above. Parafacials with a row of hairs; vibrissae almost level with the oral margin. Proboscis and palpi black. Antennae black, the third segment twice as long as the second.

Dorsum of the thorax pale golden yellow, the pleura paler pollinose; median black vitta narrower than the others and extending well onto the scutellum; no acrosticals; two strong and two weak postsutural dorsocentrals; scutellum with three pairs of marginals, the apical pair weak and decussate, and a pair of weak discals; propleura bare; three sternopleurals; hair black.

Legs black, the coxae and under surface of the anterior femora pale pollinose; pulvilli long, black with reddish margins. Middle tibiae with a single anterodorsal bristle, not ciliate; middle femora with long hair below on the basal two-thirds, the apex with anterior comb; posterior tibiae with long, fine hair on both ventral surfaces, their femora with rather long hair below and long bristly hairs behind, the anteroventral row of bristles incomplete, obsolete on the basal third.

Wings cinereous hyaline, brownish yellow basally and along the veins. Squamae white with yellow rim; halteres reddish with brown knob.

Abdomen black, cinereous pollinose, tessellate, with a narrow median brown vitta and brown longitudinal stripes on the basal half of the second and third segments toward the sides. Second segment with pair of weak median marginals, the third segment with a stronger pair, the fourth with a row; ventral edges of the fourth segment bearing abundant long hair. Genitalia shining brown, the first segment pollinose, without bristles. Lateral view of genitalia as in figure 9 of Plate 1.

Female: front almost four-fifths as wide as one eye; bearing two pairs of fine orbitals; outer verticals strong; apical scutellars absent; legs without long hair, the middle tibiae with a second small, anterodorsal bristle; second abdominal segment without median marginals, the apices of the segments more or less brown pollinose except laterally.

Holotype: ♂, **Guadalupe Island**, July 1927 (Whitney Expedition); *allotype*: ♀, No. 4071, Mus. Calif. Acad. Sci., Ent., N. W. end of **Bellona Island**, June 21, 1933; *paratypes*: 3 ♀, same data as allotype; ♀, **Malaita Island**; female, Matema Islands, Santa Cruz Group, July 8, 1933.

***Notochaeta indusa* Curran, new species**

Plate 1, figure 10

Differing from the described species by the shape of the male genitalia; posterior tibiae with a few long hairs on the apical half of the ventral edges. Length, 11 mm.

Male: head pale golden yellow pollinose, the occipital pile reddish yellow. Front less than half as wide as one eye; about eleven pairs of frontals, the upper two reclinate; ocellars long and fine; a weak bristle behind the vertical; a row of black setae behind the occipital cilia; yellow pile encroaching on the cheeks posteriorly. Cheeks four-ninths as wide as the eye-height; vibrissae situated practically level with the oral margin; parafacials with a row of fine hairs. Proboscis and palpi black. Antennae black, the third segment brownish red.

Thorax cinereous yellow pollinose; mesonotum with three broad black vittae, the median one extending to beyond the middle of the scutellum; a pair of weak prescutellar acrosticals; two strong and two weak pairs of postsutural dorso-centrals; three pairs of marginal scutellars, the apical pair long and decussate; no discal scutellars; propleura haired in the middle; two sternopleurals.

Legs black; middle femora with long hair below toward the posterior edge, and bearing the usual apical comb; middle tibiae not villous, bearing a single anterodorsal bristle; posterior femora with moderately long hair below, with two anteroventral bristles near the middle, their tibiae with long hairs on the apical half of both ventral edges; pulvilli long, brown with reddish edges.

Wings cinereous hyaline, the veins bordered with pale brown; third vein bristled half way to the small crossvein; bend of fourth vein angular. Squamae white with yellow rim; halteres yellow with brown knob.

Abdomen tessellate, cinereous pollinose, a median vitta and the apices of the segments brown. Second and third segments each with a pair of strong median marginals, the fourth with a row; lobes of the fifth sternite with rather long fine bristles on the inner edge. Genitalia shining brown, the basal segment pale pollinose, without bristles; lateral view of genitalia as in figure 10 of Plate 1.

Holotype: male, Florida Island, September 11, 1927 (Whitney Expedition).

This genus has not been recorded from the Indo-Australian region, but I believe that the specimen properly belongs here.

Chrysosarcophaga superba Townsend

Chrysosarcophaga superba Townsend, Journ. N. Y. Ent. Soc., xl, p. 442, 1932.

Female, Guadalcanar Island, July 20, 1927 (Whitney Expedition).

The bristles are all fine and short, the prescutellars very weak. The species recorded by Baranov under this name is not the same, but is undoubtedly the following since there are three black mesonotal vittae.

Phalacrodiscus ? *whitneyi* Curran, new species

?*Chrysosarcophaga superba* Baronov, Veterin. Arhiva (Zagreb), p. 475 (f), 1934.

Differs from *P. dahlianus* Enderlein in having black genital segments and the median vitta wider than the posterior fascia on each abdominal segment. I am not sure that this species belongs to *Phalacrodiscus* since Enderlein makes no mention of the propleura. Head and upper surface golden yellow, the under surface black, the dorsum with black markings. Length, 17 mm.

Female: head golden yellow, the frontal vitta, facial grooves, proboscis, palpi and antennae black; hair pale golden, very sparse and black on the front and parafacials. Frontal vitta scarcely widening anteriorly; frontals fine, extending to below the middle of the second antennal segment, the upper pair reclinate; orbitals fine, the upper pair weak; ocellars long and fine; outer verticals three-fourths as long as the verticals; occipital cilia extending to the lowest third of the eyes. Third antennal segment brown; arista with long rays on the basal two-thirds.

Black mesonotal vittae shining, moderately wide, the median one narrowest but broadened behind and extending to the middle of the scutellum. Bristles rather weak; prescutellars moderately long; four or five pairs of postsutural dorso-centrals. Pleura golden yellow on the upper half in front of the wings, but with a black vitta between the humeri and wings; lower half shining black, very thinly cinereous pollinose; hair black, yellow on the middle of the propleura. Scutellum without discs, with four pairs of equally strong marginals. Prosternum weakly haired laterally.

Legs black. Wings cinereous hyaline, tinged with brown basally. Squamae yellow, the disc with white reflection in some lights. Halteres reddish, the base of the knob tinged with brown.

Abdomen golden above, with the apices of the segments and a median vitta shining black; first segment black with golden pollinose spot on either side. The black posterior border occupies one-fifth of the second segment and is narrower than the median vitta; on the third segment the median vitta is narrower than on the second and the black fascia is very narrow; the median vitta on the fourth segment is about as wide as the preceding fascia, the tip of the segment without

conspicuous fascia. Under side of abdomen and the genital segments shining black. Hair wholly black; third and fourth segments each with a row of fine marginals, that on the third segment broadly interrupted on either side of the median marginals.

Holotype: female, **Guadalupe Island**, July 20, 1927 (Whitney Expedition).

TACHINIDAE

The collection contains two species belonging to the genus *Actia*.

Actia hyalinata Malloch

Actia hyalinata Malloch, Journ. Fed. Malay States Mus., xvi, p. 138, 1930.

Male, Matema Islands, Santa Cruz Group, July 10, 1933.

Agrees with the description, but has the third antennal segment black on the upper half beyond the arista, and the mesonotal pollen is grayish yellow instead of grayish.

Actia subaequalis Malloch

Actia subaequalis Malloch, Journ. Fed. Malay States Mus., xvi, p. 142.

Female, Tai Lagoon, Malaita Island, May 30, 1933.

PLATE 1

- Fig. 1. *Platensina malaita* Curran, new species.
Fig. 2. *Euprosopia lepida* Curran, new species.
Fig. 3. *Scholastes whitneyi* Curran, new species.
Fig. 4. *Scholastes solomensis* Curran, new species.
Fig. 5. *Scholastes palmyra* Curran, new species.
Fig. 6. *Themarohystrix exul* Curran, new species.
Fig. 7. *Maira whitneyi* Curran, new species. Lateral view of ♂ genitalia.
Fig. 8. *Maira willowsi* Curran, new species. Lateral view of ♂ genitalia.
Fig. 9. *Sarcophaga zethus* Curran, new species. Lateral view of ♂ genitalia.
Fig. 10. *Notochaeta indusa* Curran, new species. Lateral view of ♂ genitalia.
Fig. 11. *Lasiopsila fasciata* Curran, new species.

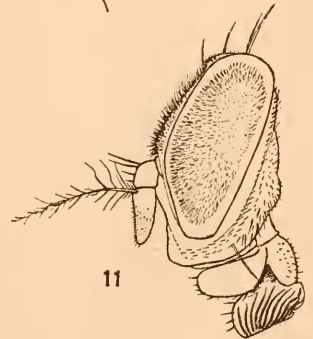
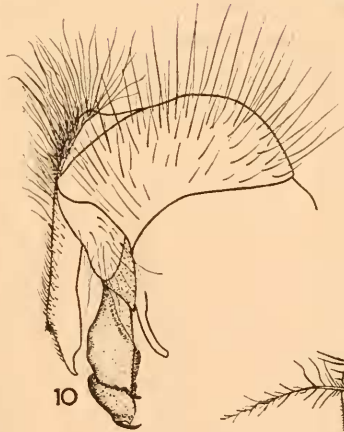
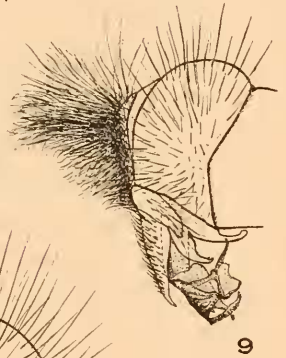
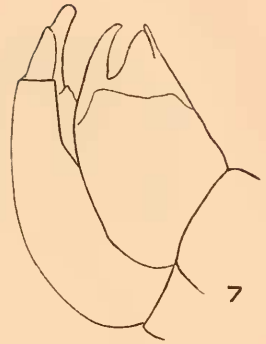
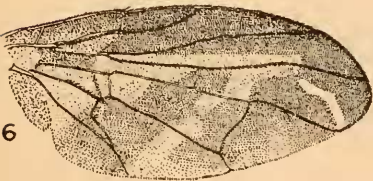
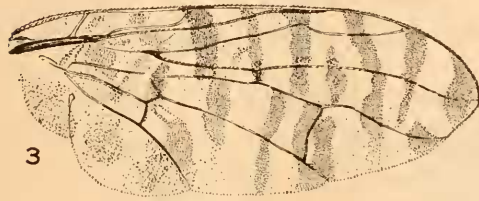
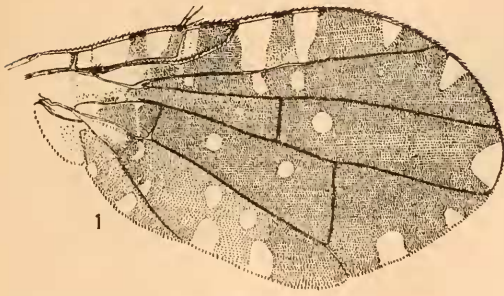


PLATE 2

Fig. 1. *Minettia ethelia* Curran, new species. Ventral view of ♂ genitalia.

Fig. 2. *Lasiopsila fasciata* Curran, new species.

Fig. 3. *Atherigona matema* Curran, new species. Ventral (a) and lateral (b) views of trifoliate genital process of ♂.

Fig. 4. *Minettia ethelia* Curran, new species. Lateral view of ♂ genitalia.

Fig. 5. *Steganopsis solomensis* Curran, new species.

Fig. 6. *Rhabdochaeta crockeri* Curran, new species.

Fig. 7. *Naupoda ventralis* Curran, new species.

Fig. 8. *Homoneura anuda* Curran, new species. Lateral view of ♂ genitalia.

Fig. 9. *Homoneura sikaiana* Curran, new species. Lateral view of ♂ genitalia.

Fig. 10. *Homoneura crockeri* Curran, new species. Lateral view of ♂ genitalia.